

Research:

1. List of Research Projects: Completed& Ongoing

Sr. No.	Title of the Project	Name of Principal Investigator	Funding Agency	Total Cost of project (Rs in Lakh)	Extra-mural (Funding agency)/ Intra-mural	Status (Completed/ Ongoing)	Duration
1.	Network project on AnGRon “Survey Evaluation and Characterization of Nagpuri Buffalo”	Dr.A.R. Sirothia	ICAR-NBAGR, Karnal	-	Extra-mural	Completed	2001-2004
2.	Network Project on AnGRon “Survey, evaluation and characterization of Gaolao cattle”	Dr.M.D. Kothekar	ICAR-NBAGR, Karnal	-	Extra-mural	Completed	2004 – 2006
3.	Effect of Candidate Genes on Milk Production Traits in Gaolao Cattle	Dr.D.S. Kale	SERB-DST, New Delhi	-	Extra-mural	Completed	2018 – 2022

2. Research Priorities:

Sr. No.	Research Area	Aim	Objective	Benefits of Farmers
1.	Genomic research for unravelling DNA variation for economic traits in indigenous breeds of cattle, buffalo, Goat and poultry for genetic improvement			
2.	Evaluation and characterization of native breeds and indigenous lesser-known germplasm for exploitation of desirable traits and generation of baseline data			

3. Thesis:

Master:

Name of Department :Animal Genetics and Breeding				
Sr. No.	Name of the Student	Title of Thesis	Year of Completion	Name of the Advisor
1.	Choudhary Vivek	Restricted maximum likelihood estimation for some of the economic traits in Sahiwal cattle	2000	Dr M.D. Kothekar
2.	Ambhore G.S.	Studies on the carcass quality characteristics of Berari goats of Nagpur region	2000	Dr. A.R Sirothia
3.	Thakur B.R.	Prediction of total lactation yield on the basis of part performance	2000	Dr.M.D. Kothekar
4.	Jangam R.B.	A study of phenotypic characteristics of Berari goats under field condition	2001	Dr A.R. Sirothia
5.	Panicker V.C.	A study on the production performance of Nagpuri (Berari) buffaloes under field conditions	2002	Dr. A.R. Sirothia
6.	Nandedkar P.V.	Study of some morphometric traits of Nagpuri (Berari) buffalo under field conditions	2002	Dr.A.R. Sirothia
7.	Vane S.R.	Studies on some reproductive traits of Nagpuri (Berari) buffaloes under field conditions	2002	Dr.A.R. Sirothia
8.	Goodwin Y.Y.	Studies of lactation parameters of Nagpuri (Berari) buffalo under village condition of Nagpur district	2003	Dr A.R. Sirothia
9.	Kargirwar S.V.	Breed characterization of Gaolao cattle in Wardha district of Vidarbha region	2004	Dr. A.R. Sirothia
10.	Katre T.L.	Characterization of growth hormone gene of Nagpuri buffalo	2004	Dr.A.R. Sirothia
11.	Masne V.S.	Study of sire values and ranking in sahiwal bulls	2005	Dr M.D Kothekar
12.	Rajesh Kumar S.	Molecular characterization of Krishna valley breed of cattle using microsatellite markers	2005	Dr.M.D. Kothekar
13.	Sawaimul A.D.	Assessment of genetic variability among Indian sheep breeds by RFLP-	2007	Dr.S.R.

		PCR of mitochondrial DNA cytochrome b region		Tekade
14.	Sahare M.G.	Analysis of genetic diversity among Indian sheep breeds by RFLP – PCR of mitochondrial DNA D – loop region	2007	Dr. S.Z.Ali
15.	Bankar P.S.	Genetic analysis of production and reproduction traits in Malpura sheep	2008	Dr.A.R. Sirothia
16.	Hatkar D.N.	Analysis of genetic diversity of Indian Madgyal sheep breed by random amplified polymorphic DNA-PCR	2008	Dr.A.R. Sirothia
17.	More S.N.	Determination of A1 and A2 Beta Casein variants in Indian cattle breeds	2009	Dr.A.R. Sirothia
18.	Deshmukh S.Y.	Study of morphometric traits of Madgyal sheep reared under field and organized farm conditions	2009	Dr.A.R. Sirothia
19.	Dudhe S.D.	Phenotypic and morphometric characterization of migrated Nellore type sheep breed from Ghatanji and Pandharkawada Taluka of Yawatmal District of Maharashtra	2010	Dr.A.R. Sirothia
20.	Kamble S.B.	Analysis of milk protein polymorphism in Berari goat breed of Vidarbha region of Maharashtra	2011	Dr.A.R. Sirothia
21.	Doiphode P.U.	Metallothionein gene polymorphism study in cattle from fly ash zone	2012	Dr.M.D. Kothekar
22.	Behera Rajlaxmi	Molecular screening of aminolevulinic acid dehydratase gene in cattle from fly ash zone	2012	Dr.M.D. Kothekar
23.	Gholap P.N.	Polymorphism in coding region of Metallothionein gene in Zebu cattle using molecular marker techniques	2014	Dr.D.S.Kale
24.	Dudule P. D.	Study of Prolactin Gene Polymorphism in Gaolao Cattle	2018	Dr.D.S.Kale
25.	Pantawane S.N.	Screening for SNPs within DGAT1 Gene of Gaolao Cattle	2019	Dr.D.S.Kale
26.	Khandare P.M.	Study of DNA sequence variation within STAT1 Gene of Gaolao Cattle	2019	Dr.D.S.Kale
27.	Sathe Y. B.	DNA polymorphisms in PPARGC1A and FASN genes in Gaolao Cattle Population	2021	Dr.D.S.Kale
28.	Kate R.R.	Analysis of SPP1 gene polymorphisms in Gaolao Cattle Population	2021	Dr.D.S.Kale
29.	Wankhade Aboli	Association of IGF1 gene polymorphisms with milk production traits in Gaolao Cattle	2021	Dr.D.S.Kale

30.	Kurude K. P.	Phenotypic characterization of local goats in Gadchiroli District	2023	Dr.K.P. Kharkar
31.	Markandeywar K. N.	Polymorphisms within Chicken Growth Hormone and Perilipin Genes and their association with Growth and Carcass Traits in Kadaknath Chicken	2024	Dr.D.S.Kale
32.	Thote S.N.	Study of MSTN and CAST gene polymorphism and its association with carcass traits in Berari Goat	2024	Dr.K.P. Kharkar

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.	R.J. Tirpude, M.D. Kothekar, A.K. Gore, S.N. Deshmukh.	1995	Estimation of genetic trends in Sahiwal.	<i>Indian Journal of Anim. Sci.</i>	65(6): 691-693.	NAAS 2024 Rating:6.40
2.	S.V. Kuralkar, M.D. Kothekar, S.N. Deshmukh, A.K. Gore, K.R. Tajane	1995	Sire evaluation using different non-genetic fixed effects in BLUP model for first lactation milk yield in Sahiwal.	<i>Indian Journal of Dairy Science.</i>	48(2): 154.	NAAS 2024 Rating:5.24
3.	V.R. Shrirao, M.D. Kothekar, S.N. Deshmukh, A.K. Gore	1997	Serum transferrin polymorphism and their association with economic traits in Sahiwal and Jersey X Sahiwal crosses.	<i>Indian J. of Animal Sciences.</i>	67(12): 1079-81.	NAAS 2024 Rating:6.40
4.	P.B. Deulkar and M.D. Kothekar.	1999	Relationship between sire evaluation for first and later lactation records in Sahiwal.	<i>Indian J. of Animal Sciences.</i>	69(9): 736-738.	NAAS 2024 Rating:6.40
5.	A.D. Thore and M.D. Kothekar	2000	Maximum likelihood estimates of heritability of different economic traits in Sahiwal.	<i>Indian J. of Animal Sciences</i>	70(6): 645-646	NAAS 2024 Rating:6.40
6.	A. D. Sawaimul, M. G. Sahare, S. Z. Ali, A. R. Sirothia and Satish Kumar.	2014	Assessment of genetic variability among Indian sheep breeds using mitochondrial DNA cytochrome-b region.	<i>Veterinary World</i>	7(10): 852-855.	NAAS 2024 Rating:7.60
7.	D.N. Hatkar, L.L.L. Prince, A.R. Sirothia, C. Paswan*	2010	Study of Genetic Relatedness among Meat Producing Indian Sheep Breeds by RAPD-PCR.	Journal of Applied Animal Research	38 (2010) : 129-133.	NAAS 2024 Rating:7.40
8.	Gholap, P.N.; Kale, D.S.* ; Krishnamurthi, K., Sirothia, A.R. and Kothekar, M.D.	2016	Screening of partial coding region of metallothionein isoform-2 gene in Zebu cattle.	Iranian Journal of Veterinary Research	17(3), Ser. No. 56, 155-159.	NAAS 2024 rating:7.20

9.	P.D.Dudule,D.S.Kale* ,A.Sonwane, D.V.Patil, M.R.Jawale&K.P.Kha rkar.	2020	PCR- RFLP polymorphism at exon 3 and promoter region of Prolactin gene in Gaolao Cattle.	<i>Indian Journal of Animal Research.</i>	(54):523 -528.	<i>NAAS 2024 Rating:6.50</i>
10.	Y.B. Sathe, D.S. Kale*, Jaya Singh, D.V. Patil, P.G. Koringa, J.P. Korde & M.R. Jawale	2023	DNA Polymorphisms in 3'UTR and Intron-9 region of PPARGC1A Gene and its Association with Milk Production Traits in Gaolao Cattle.	<i>Indian Journal of Animal Research</i>	57(9), 1146- 1151	<i>NAAS 2024 rating: 6.50</i>

Research Priorities / Thematic areas: Department Wise

- Genomic research for unraveling DNA variation for economic traits in indigenous breeds of cattle, buffalo, Goat and poultry for genetic improvement.
- Evaluation and characterization of native breeds and indigenous lesser-known germplasm for exploitation of desirable traits and generation of baseline data

