Department of Poultry Science
Bombay Veterinary College

Research

2. List of Private Agency Project

Sr No	Title of 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
1	Effect of liquid organic acids in broilers	PI - Dr A. S. Ranade Co PI- Dr. D. N. Desai	Rashtriya Chemicals & fertilizers	Rs. 25,000	Extra-mural	**completed**	12.12.2005 to 20.03.2006
2	Use of Florenfenicol in broilers	PI - Dr A. S. Ranade Co PI- Dr. D. N. Desai		Rs. 25,600	Extra-mural	**completed**	06.05.2006 to 10.08.2006
3	Effect of HMTBA chelated organic trace minerals on broilers and layers	PI - Dr A. S. Ranade Co PI- Dr. D. N. Desai	Novus International Inc.	Rs. 2,57,800	Extra-mural	**completed**	10.09.2008 to 10.09.2011
4	To study the effect of Xylanase on broilers	PI - Dr A. S. Ranade Co PI- Dr. D. N. Desai	Lumis Biotech	Rs. 89,850	Extra-mural	**completed**	13.04.2009 to 15.07.2009
5	Enrichment of Omega 3 fatty acid in chicken meat	PI - Dr A. S. Ranade Co PI- Dr. D. N. Desai	IRSHA, BharatiVidya peeth	Rs. 15,950	Extra-mural	**completed**	01.09.2009 to 05.12.2009

6	Effect of enriched feed mixture and linseed oil on broilers	PI - Dr A. S. Ranade Co PI- Dr. D. N. Desai	IRSHA, BharatiVidyapeeth	Rs. 20,000	Extra-mural	**completed**	10.02.2010 to 15.05.2010
7	To study the effect of enzymes in broilers	PI - Dr A. S. Ranade Co PI- Dr. D. N. Desai	Lumis Biotech	Rs. 84,000	Extra-mural	**completed**	09.09.2010 to 20.12.2010
8	Use of Betaine to improve carcass quality in broilers	PI - Dr A. S. Ranade Co PI- Dr. D. N. Desai	Jubilant Life Sciences	Rs. 78,000	Extra-mural	**completed**	05.03.2011 to 25.06.2011
9	Trial of Actigen in broilers	PI - Dr A. S. Ranade Co PI- Dr. D. N. Desai	Altech Biotechnology	Rs. 1,41,500	Extra-mural	**completed**	10.08.2011 to 25.11.2011
10	Trial on Natugrain TS and Rovabio Excel on broilers.	PI - Dr A. S. Ranade Co PI- Dr. D. N. Desai	BASF	Rs. 1,54,600	Extra-mural	**completed**	17.03.2012 to 24.06.2012
11	Effect of feeding various Probiotics on performance of commercial layers	PI - Dr A. S. Ranade Co PI- Dr. D. N. Desai	EVONIK (SEA) Pte. Ltd.)	Rs. 9,05,715/-	Extra-mural	**completed**	15.12.2014 onwards
12	Study of organic Calcium in Layers	PI -Dr. D. N. Desai	Orffa Animal Nutrition Pvt	Rs. 5,50,000/-	Extra-mural	**completed**	2015-2016
13	Evaluation MHA88% in broiler and Layer Diets	PI -Dr. D. N. Desai	UPL Pvt. Ltd.	Rs. 5,12,000/-	Extra-mural	**completed**	2018-2019
14	Effect of supplementation of Lancer (Lanthanum citrate) on performance, gut health and immunity in broilers	PI -Dr. D. N. Desai Co PI-Dr M.A.Gole	TreibacherIndustrie AG, Austria &Chemet India	Rs. 3,50,000/-	Extra-mural	**completed**	2023-2024

15	Evaluation of Lancer 95/5 as replacement to antibiotic growth promoter in broilers	PI -Dr. D. N. Desai Co PI-Dr M.A.Gole	TreibacherIndustrie AG, Austria &Chemet India	Rs.15,00,800/-	Extra-mural	Ongoing	2024-2025

4. Thesis

Master

Sr No	Name of Student	Title of Thesis	Year of Completion	Name of Advisor
1.	Dr. B. V. Rajmane	Effect of artificial insemination v/s flock mating on some production function of fowl	1977	Dr. M. V. Kulkarni
2.	Dr. R. D. Patil	Effect of different energy level and housing system on economic traits in broiler chicken	1977	Dr. M. V. Kulkarni
3.	Dr. N. V. Jadhav	Effect of Clomiphene citrate on economic traits of layers	1979	Dr. M. V. Kulkarni
4.	Dr. C. S. Patil	Genetic estimation of egg production traits	1979	Dr. M. V. Kulkarni
5.	Dr. S. D. Bhosale	Different energy levels and their combination on growth and other economic characters of broiler chicken	1979	Dr. M. V. Kulkarni
6.	Dr. K. S. Khare	Production of broilers v/s egg strain cockerels and their economics	1980	Dr. M. V. Kulkarni
7.	Dr. I. I. Sayed	Effect of different levels of poimix (Clomiphene citrate) on egg traits of poultry	1980	Dr. M. V. Kulkarni
8.	Dr. S. R. Joshi	Genetic studies on part year and annual egg production in white leghorn flock	1980	Dr. M. V. Kulkarni
9.	Dr. A. A. A. Shaikh	Studies on economic traits of broilers with clomiphene	1981	Dr. M. V. Kulkarni
10.	Dr. A. T. Kumbhar	Studies on cage shape and inclusion of poultry manure on performance of layers	1981	Dr. M. V. Kulkarni
11.	Dr. C. N. Bargaje	Effect of environmental components on egg laying pattern in hens	1982	Dr. M.V. Kulkarni
12.	Dr. S. L. Bhangale	Genetic studies of fertility, hatchability and embryonic mortality in B-2 line of White leghorn.	1983	Dr. K.A.Reddy
13.	Dr. R. R. Kulkarni	Genetic studies of economic trait in V strain of White leghorn	1983	Dr. K. A. Reddy
14.	Dr. H. B. Fisarekar	Effect of combination of unconventional feed ingredients in broilers	1983	Dr. B. V. Rajmane
15.	Dr. T. M. Bhadange	Studies on the performance of cockerels on various protein and energy levels	1984	Dr. B. V. Rajmane
16.	Dr. A. V. Naik	Effect of replacement of fish meal with liver residue meal on performance of layers	1984	Dr. B. V. Rajmane
17.	Dr. B. A. Jadhav	Comparative study of different growth promoters in cockerels	1985	Dr. B. V. Rajmane
18.	Dr. A. S. Ranade	Comparative study of different litter materials for poultry production	1986	Dr. B. V. Rajmane
19.	Dr. S. R. Girdhar	Effect of dietary calcium and phosphorus levels on productive performance and egg	1986	Dr. B. V. Rajmane

		shell quality in caged layers		
20.	Dr. A. T. Patil	Studies on use of biologically produced protein digest extract and different litter materials on various traits in layers	1987	Dr. B. V. Rajmane
21.	Dr. D. W. Usgaonkar	Studies on effect of heat stress and possible remedial measures in broilers under stress	1987	Dr. B. V. Rajmane
22.	Dr. M. M. Chawak	Studies on performance and immunomodulating effect of levamisole in broilers under stress	1988	Dr. B. V. Rajmane
23.	Dr. C. L. Deshmukh	Effect of substituting fish meal with groundnut extraction at various levels on performance of broilers	1989	Dr. B. V. Rajmane
24.	Dr. S. D. Jinturkar	Effect of different growth promoters on performance of broilers	1989	Dr. B. V. Rajmane
25.	Dr. S. H. Dange	Effect of various energy levels on some economic traits in growing and laying quails	1989	Dr. B. V. Rajmane
26.	Dr. G. L. Nehete	Use of probiotic as growth promoter in broilers	1989	Dr. B. V. Rajmane
27.	Dr. B. D. Patil	Effect of biotin feeding on performance of broilers	1989	Dr. B. V. Rajmane
28.	Dr. A. S. Kadam	Effect of enzyme supplement on performance of broilers	1991	Dr. B. V. Rajmane
29.	Dr. S. S. Patil	Effect of different physical forms of feed on performance of broilers	1991	Dr. B. V. Rajmane
30.	Dr. S. R. Khanapurkar	Comparative performance of broilers under different managemental conditions, areas and seasons	1992	Dr. B. V. Rajmane
31.	Dr. M. R. Manthanwar	Effect of replacement of maize with finger millet (*Eleusinecoracana*) on the performance of broilers	1992	Dr. B. V. Rajmane
32.	Dr. A. T. Gunde	Studies on the effect of replacement of groundnut extraction protein with sunflower extraction in broiler mash	1992	Dr. B. V. Rajmane
33.	Dr. V. S. Patil	Effect of dietary inclusion of Jowar cake on performance of broilers	1993	Dr. B. V. Rajmane
34.	Dr. S. A. Thorat	An evaluation of intake plus as flavor enhancer and appetite stimulant on the performance of broilers	1993	Dr. B. V. Rajmane
35.	Dr. R. D. Adsul	Studies of efficacy of enzyme feed supplement and Lactobacilli culture on growth and immune response of broilers	1994	Dr. B. V. Rajmane
36.	Dr. S. G. Shinde	Studies on extruded full fat soybean in broiler diet	1995	Dr. A. S. Ranade
37.	Dr. N. C. Bedse	Comparative evaluation of herbal products for poultry	1996	Dr. A. S. Ranade
38.	Dr. P. P. Kulkarni	Effect of amino acid chelates on performance of broilers	1996	Dr. A. S. Ranade
39.	Dr. P. K. Pawar	Study on predisposing factors responsible to cause outbreaks of infectious bursal disease	1996	Dr. A. S. Ranade
40.	Dr. S. S. Nadgauda	Effect of live yeast culture [*Kluyveromycesfragilis* and *Saccharomyces cervisiae*] on the performance of broilers	1997	Dr. A. S. Ranade
41.	Dr. S. J. Patil	Effect of herbal feed supplement 'Magacal' on the performance of broilers	1997	Dr. A. S. Ranade
42.	Dr. A. M. Mahakal	Studies on replacement fish meal in the diet	1998	Dr. A. S. Ranade

		of broiler quails		
43.	Dr. S. C. Pasarte	Use of poultry byproduct meal in broiler ration	1998	Dr. A. S. Ranade
44.	Dr. S. J. Bhosale	Effect of high fibre diet with enzyme supplementation on the performance of broiler chickens	1998	Dr. A. S. Ranade
45.	Dr. D. H. Kadam	Use of silkworm pupae meal in broiler ration	1999	Dr. A. S. Ranade
46.	Dr. V. B. Bhosale	Study of different protein levels in the diet of broiler quails	1999	Dr. A. S. Ranade
47.	Dr. Shivaji Dey	Effect of enzyme supplementation on the performance of broiler chickens	1999	Dr. A. S. Ranade
48.	Dr. V. E. Kumbhar	Studies on utilization of dried poultry manure in broiler ration	1999	Dr. A. S. Ranade
49.	Dr. D. N. Desai	Effect of 'Lysoforte dry' on performance of broilers	2000	Dr. A. S. Ranade
50.	Dr. A. H. Sayed	To study the effect of live yeast culture on the performance of broilers	2000	Dr. A. S. Ranade
51.	Dr. S. M. Bhise	Use of ' Acid lac dry' as antibiotic/ probiotic replacer in broiler ration	2000	Dr. A. S. Ranade
52.	Dr. M. A. Gole	Effect of liquid preparation of vitamin E and selenium on growth and immune response of broilers	2001	Dr. A. S. Ranade
53.	Dr. M. M. Kadam	Effect of nitrifying bacteria in reducing ammonia problem in broilers housed at different stocking densities	2001	Dr. A. S. Ranade
54.	Dr. S. K. Jagtap	Use of oligodextran as a growth promoter in broiler under stress	2001	Dr. A. S. Ranade
55.	Dr. K. K. Khose	Effect of phytase on performance of broiler fed with low phosphorus diets	2001	Dr. A. S. Ranade
56.				
57.	Dr. ShoikatSaha	Effect of different growth promoters on the performance of broilers quails	2002	Dr. A. S. Ranade
58.	Dr. P. M. Parit	Effect of supplementation of phytase on availability on nutrients in broilers	2002	Dr. A. S. Ranade
59.	Dr. B. S. Kolekar	Effect of enzyme supplementation on performance of broilers receiving different levels of fibre in the diet	2002	Dr. A. S. Ranade
60.	Dr. A. S. Patwardhan	Use of Tamarind Kernel powder in broiler rations	2002	Dr. A. S. Ranade
61.	Dr. S. G. Aswale	To study the effect of feeding fats and oils from different sources on the performance of broilers	2003	Dr. A. S. Ranade
62.	Dr. S. V. Patil	To study the role of Betaine in broilers	2003	Dr. A. S. Ranade
63.	Dr. S. M. Gurav	Comparative study of different anticoccidials on the performance of broilers.	2003	Dr. A. S. Ranade
64.	Dr. D. V. Ilake	Use of different vegetable oils in broiler diet	2004	Dr. A. S. Ranade
65.	Dr. D. S. Shinde	Comparative study of different litter materials and stocking densities on the performance of broilers	2004	Dr. A. S. Ranade
66.	Dr.T. H. Dangat	To study the effect of quantitative feed restriction in broilers.	2004	Dr. A. S. Ranade
67.	Dr. S. S. Swami	The effect of day-old weights on performance of broilers	2004	Dr. A. S. Ranade

68.	Dr. P. G. Gaikwad	Study on the effect of supplementation of Garlic (*Allium sativum*) on performance of broilers	2005	Dr. A. S. Ranade
69.	Dr. P. E. Avari	Management of endangered *Gyps species* of Vultures in captivity	2005	Dr. A. S. Ranade
70.	Dr. D. Y. Lokhande	Comparative evaluation of prebiotic, probiotic and acidifier in broiler diets	2005	Dr. A. S. Ranade
71.	Dr. D. L. Waghmare	Evaluation of oil fortified with herbs on performance of broilers	2006	Dr. A. S. Ranade
72.	Dr. P. T. Bhapkar	Comparative evaluation of liquid methionine and powder methionine on performance of broilers	2006	Dr. A. S. Ranade
73.	Dr. P. P. Chaudhari	Effect of chromium picolinate on the performance of broilers	2006	Dr. A. S. Ranade
74.	Dr. P. N. Vaidya	Effect of environment enrichment, filial imprinting and music application on the performance of broilers	2006	Dr. A. S. Ranade
75.	Dr. D. V. Metakari	Evaluation of herbal product poult fresh for reducing ammonia levels in poultry litter	2007	Dr. A. S. Ranade
76.	Dr. C. P. Munj	Studies on synergestic effects of certain commonly used feed additives on performance of broilers	2007	Dr. A. S. Ranade
77.	Dr. U. M. Patil	Studies on effects of using distilleries dried grains with solubles (DDGS) in the diets with certain feed additives on performance of broilers	2007	Dr. A. S. Ranade
78.	Dr. H. P. Thange	Efficacy of different herbal preparations in broiler diet for immunomodulation	2008	Dr. A. S. Ranade
79.	Dr. A. B. Adkine	To study the effect of acidic and alkaline drinking water on the performance of broilers	2009	Dr. A. S. Ranade
80.	Dr. S. P. Lawand	To study the effect of supplementation of liquid methionine and liquid multi enzyme preparation on performance of broilers reared on optimum and lower levels of crude protein	2009	Dr. A. S. Ranade
81.	Dr. B. R. Vighane	Use of phytobiotics in broilers to improve the production performance.	2009	Dr. A. S. Ranade
82.	Dr. R. B. Agivale	Effect of HMTBa chelated organic trace minerals Zinc, Manganese, Copper and Selenium yeast on broiler performance and immunity	2009	Dr. A. S. Ranade
83.	Dr. S. S. Padhye	Effect of HMTBA chelated organic trace minerals Zinc, Manganese, Copper and Iron on layer performance and egg shell quality	2010	Dr. A. S. Ranade
84.	Dr. B. G. Gangurde	Use of HMTBA chelated organic trace minerals Zinc, Manganese, Copper and Iron to improve egg shell quality in post peak phase	2010	Dr. A. S. Ranade
85.	Dr. F. G. Mulani	To study the effect of various levels of Inulin	2011	Dr. A. S. Ranade

		on performance and gut health of broilers		
86.	Dr. G.P. Pawar	Study on performance of broilers on diets without corn	2012	Dr. A. S. Ranade
87.	Dr. H. A. Vichare	Use of chitin industry by-product in diet of layers	2012	Dr. A. S. Ranade
88.	Dr. K. M. Purohit	To study the effect of feeding soluble proteins obtained from crustacean shells on performance of broilers	2013	Dr. D. N. Desai
89.	Dr. A. D. Dingore	Effect of feeding different levels of rice distillers dried grains (RDDGS) on performance of broilers	2014	Dr. D. N. Desai
90.	Dr. N. B. Datir	To study the effect of saponin and inulin singly or in combination on performance and gut health of broilers	2014	Dr. A. S. Ranade
91.	Dr. A. K. Kate	Replacing dietary soybean meal protein by various levels of rapeseed meal in broilers	2014	Dr. A. S. Ranade
92.	Dr. B. S. Rathod	Effect of feeding various levels of guar meal on performance of layers	2016	Dr. P. E. Avari
93.	Dr. N. R. Joshi	Effect of Calcium pidolate on egg production and egg quality during last phase of production cycle with reducing levels of inorganic Calcium	2016	Dr. D. N. Desai
94.	Dr. A. R. Narwade	Comparative study of combination of different litter materials on the performance of broilers	2018	Dr. P. E. Avari
95.	Dr. G. A. Manganale	Study on production performance of layers in different types of cages with different stocking densities	2018	Dr. D. N. Desai
96.	Dr. N. V. Khuje	Effect of dietary supplementation of phospholipids on egg production and egg quality in layers	2018	Dr. P. E. Avari
97.	Dr. N. A.Mulla	Use of natural insoluble fibre in oat hulls (*Avenasativa*) as non-antibiotic growth promoter in broilers	2019	Dr. D. N. Desai
98.	Dr. S. S. Gaikwad	Effect of bacteriophages on production performance and gut health in broilers	2021	Dr. D. N. Desai
99.	Dr. S. G. Andhale	Study of combination of *Curcuma longa*, lutein and *Cissus quadrangularis* on production performance and egg quality in layers	2022	Dr. D. N. Desai
100.	Dr. V. S. Ambati	Increasing efficiency of rapeseed meal by utilization with different enzymes in broiler diets	2022	Dr. P. E. Avari
101.	Dr. G. Koushik	Comparative study of saponin, insoluble fibre, symbiotics and acidifiers on performance and gut health of broilers	2023	Dr. D. N. Desai
102.	Dr. V. G.Pagdhune	Effect of combination of *Curcuma longa*, lutein and *Cissus quadrangularis* on production performance and carcass quality of broilers	2023	Dr. D. N. Desai
103.	Dr. P. V. Mijgar	Effect of supplementation of lanthanum citrate on production performance, gut health and immunity in broilers	2024	Dr. M. A. Gole
104.	Dr. S. P. Vikhe	Use of esterified butyrates as replacement to antibiotic growth promoters in broilers	2024	Dr. D. N. Desai

105.	Dr. E. S. Thote	Comparative evaluation of ammonium chloride, sodium bicarbonate, betaine and vitamin C in diet on production performance of broilers	Ongoing	Dr. D. N. Desai
106.	Dr. B. A. Yeltiwar	Effect of stocking density on production performance of broilers	Ongoing	Dr. M. A. Gole

Doctoral

Sr No	Name of Student	Title of Thesis	Year of Completion	Name of Advisor
1.	Dr. B. V. Rajmane	Influence of extra retinal photoreceptors on reproduction performance of chicken	1990	Dr. M. V. Kulkarni
2.	Dr. M. Ahmad	Effect of genotype X environment interaction involving two genotypes and three dietary treatments under three seasons in quails	2000	Dr. B. V. Rajmane
3.	Dr. A. S. Ranade	Effect of enzyme supplementation on performance of layers and broilers	2001	Dr. B. V. Rajmane
4.	Dr. S. D. Bhosale	Studies on the production characters of Kadaknath and Rhode Island Red breeds and their F1 progeny of reciprocal matings and back crosses in a trial involving Diallelmatings	2005	Dr. S. G. Narayankhedkar
5.	Dr. D. N. Desai	Supplementation of protease enzyme in broiler diets with different sources of protein	2019	Dr. A. S. Ranade
6.	Dr. P. E. Avari	Utilization of proteins from shellfish industry processing waste in broiler diets	2019	Dr. A. S. Ranade
7.	Dr. S. S. Gaikwad	Effect of milkthistle (*Sylibummarianum*) on performance and health aspects of broilers	Ongoing	Dr. D. N. Desai

5. Research Papers Published
List of Research Publications

Sr. No.	Author(s)	Year	Title of Paper	Name of Journal	Vol. No., Page No.	NAAS Rating / If Any
1	Garud K.V., Lambhate V.P., Mote C. S., Suryawanshi D. S., Ranade A. S.,Nehete R. S. &**Desai D. N.**	2008,	A quick diagnostic test for Canine Distemper with the use of 'Anti CDV – IgY:Fluorescent Antibody Test'	The Journal of Bombay Veterinary College,	Vol: 16 (1), pp. 71-72.	2.18
2	MunjC.P., Ranade A.S., **Desai D. N.**, Avari P. E., Patil U. M. and Metkari D. V.	2010	Studies on Synergistic effects of certain common feed additives on carcass quality, intestinal pH and gut microflora in broilers.	Indian Journal of Animal Nutrition	Vol. 27, No.1, pp. 93-95	4.51
3	Munj C.P., Ranade A.S., **Desai D. N.**, Patil M. B., Avari P. E., Patil U. M. and Metkari D. V.	2010	Synergistic effects of feed on performance of broilers	Indian Journal of Poultry Science,	Vol. 45, Issue 3, pp. 292-296.	5.01
4	Patil A. D., DhandeP. L., Ranade A. S., Bakshi S. A. and **Desai D. N.**	2014	Effect of the extirpation of the preen gland on the eggs quality and eggs production in young and spent WHL layers	The Journal of Bombay Veterinary College,	0971-1643, Vol: 21 (1) pp. 59-67.	2.67
5	**D. N. Desai**, A. S. Ranade and P. E. Avari	2018	Effect on broilers fed with diets containing sunflower meal supplemented with protease	International Journal of Livestock Research	Vol. 8 (05), pp. 196-204.	5.36
6	A. N. Narwade, P. E. Avari, A. S. Ranade, **D. N. Desai** and N. R.	2018	Use of combination of different litter materials on the performance of	International Journal of Livestock Research,	Vol. 8 (09), Sept. 2018 pp. 122-127	5.36

	Karambele		broilers			
7	P. E. Avari, A. S. Ranade and **D. N. Desai**	2018	Effect of shellfish processing waste coated on sunflower extraction replacing soybean meal on performance of broilers.	International Journal of Livestock Research	Vol. 8 (10), Oct. 2018 pp. 357-364	5.36
8	A. N. Narwade, P. E. Avari, A. S. Ranade, **D. N. Desai** and N. R. Karambele	2018	Comparison of litter moisture and ammonia levels from combinations of litter materials used for broiler rearing	The Journal of Bombay Veterinary College,	2017 Vol. 24 (2), pp. 60-64.	2.67
9	Jyoti Saini, P. L. Dhande, A. S. Ranade, B. N. Ramteke, P. E. Avari and **D. N. Desai**	2018	Effects of cocktails enzymes on growth performance and intestinal histomorphology in broilers	The Journal of Bombay Veterinary College,	Vol. 25 (2), pp. 17-21.	2.67
10	N. R. Joshi, **D. N. Desai**, A. S. Ranade and P. E. Avari	2019	Effect of calcium pidolate on egg production and egg quality during last phase of production cycle with reducing levels of inorganic calcium	International Journal of Livestock Research,	Vol. 9 (01), Jan. 2019 pp. 125-133.	5.36
11	G. A. Manganale,**D. N. Desai**, A. S. Ranade and P. E. Avari	2019	Study of production performance of 12layers in different cages with different stocking densities	International Journal of Livestock Research,	Vol. 9 (`02), Feb. 2019 pp. 190-196.	5.36
12	N. A. Mulla, **D. N. Desai**, P. E. Avari and A. S. Ranade	2020	Use of natural insoluble fiber in oat hulls (*Avenasativa*) as non-antibiotic growth promoter in broilers	International Journal of Livestock Research,	Vol. 10 (8), Aug'2020, pp 156-164.	5.36
13	Jyoti Saini, P.	2022	Growth	Indian	August 2022, Vol.	5.85

	L. Dhande, A. S. Ranade, P. E. Avari and **D. Desai**		performance, meat yields and economics of broiler chickens fed diets containing selected feed additives	Journal of Poultry Science,	57, Issue 2, pp. 145-149.	
14	Mukloth Suresh, G. K. Sawale, P. V. Meshram and **Deepashree Desai**	2023	Seroprevalence of *Mycoplasma synoviae* in broiler breeder flock	The Pharma Innovation Journal	2023, 12 (8):381-383.	5.23
15	S. S. Gaikwad, **D. N. Desai**, A. S. Ranade, P. E. Avari, **M. A. Gole**, S. d. Jagdale and R. R.Pharande	2023	Effect of Bacteriophages on production performance and gut health in broilers	Indian Journal of Poultry Science.	*Indian Journal of Poultry Science (2023) 58(3):* 241−246*; Research Article* DOI: 10.5958/0974-8180.2023.00042.9	5.85
16	Ganji Koushik, **D. N. Desai**, A. S. Ranade, **M. A. Gole**, R. R. Pharande S. D. Jagdale, V. H. Shukla and S. S. Gaikwad	2023	Comparative study of saponin, insoluble fibre, symbiotic and Acidifiers on performance and gut health of broilers	Indian Journal of Poultry Science,	*Indian Journal of Poultry Science (2023) 58(3): 255-259; Research Article* DOI: 10.5958/0974-8180.2023.00047.8	5.85
17	**D. N. Desai**, V. G. Pagdhune, A. S. Ranade, S. d. Jagdale, R. R. Pharande and V. H. Shukla	2024	Use of Lutein, *Cissus qudrangularis* and *Curcura longa* in broiler chickens	International Journal of Veterinary Sciences and Animal Husbandry, January 2024		4.61

List of Marathi and Popular Articles

Research Recommendations

Year 2016

1.	**Project Title**	To study the effect of Saponin and Inulin singly or in combination onperformance and gut health of broilers
	Investigators	Dr. N. B. Datir, Dr. P. E. Avari, Dr. D. N. Desai, Prof. Dr. A. S. Ranade and
	Name of the college	Mumbai Veterinary College
	Recommendation	It is recommended to supplement the combination of soapnut (*Sapindus mukorossi*) powder @ 50 g/ T (providing saponin @ 0.005 g/ kg of feed) and chicory root powder @ 250 g/ T of feed (providing inulin @ 0.1 g/ kg of feed) in broilers to get improved performance and profits.
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1.	**Project Title**	Effect of feeding different levels of Rice Distillers Dried Grains with Solubles (RDDGS) on performance of broilers
	Investigators	Dr. A. D. Dingore, Dr. D. N. Desai, Dr. P. E. Avari and Prof. Dr. A. S. Ranade
	Name of the college	Mumbai Veterinary College
	Recommendation	It is recommended to use Rice Distillers Dried Grains with Solubles (RDDGS) in broiler diets with caution as it has negative effects on the performance of broilers.
	□□□□□□	fMLVhyjhe/kwu bFksukWy dk<wu ?ksRkY;kuaRkj mjysyk lqdoysyk rkanGkpk pksFkk o nzkOk.k ekaly i{;kaP;k [kk|kr okijrkuk R;kpk i{;kaP;k mRiknu {kersoj foijhr ifj.kke gksRk vlY;kus dkGTkhiwoZd okijkok-

Year 2017

1.	**Project Title**	Effect of feeding various levels of Guar meal on performance of layers
	Investigators	Dr. B. S. Rathod, Dr. P. E. Avari, Dr. D. N. Desai and Prof. Dr. A. S. Ranade
	Name of the college	Mumbai Veterinary College
	Recommendation	It is recommended that the guar meal can be used to replace soybean meal up to 20% level in the layer diet.

	□□□□□□	ysvj i{;kaP;k [kk|kr lks;kchu ehy,soth xokj ehy 20 VDds izek.kkr okijkos-

1.	**Project Title**	Effect of Calcium pidolate on egg production and egg quality during last phase ofproduction cycle with reducing levels of inorganic calcium.
	Investigators	Dr. N. R. Joshi, Dr. D. N. Desai, Dr. P. E. Avari and Prof. Dr. A. S. Ranade
	Name of the college	Mumbai Veterinary College
	Recommendation	It is recommended that the supplementation of Calcium pidolate @ 500 g/T helps in reducing the number of broken eggs without any beneficial effect on the performance of the layers.
	□□□□□□	ysvj i{kkaP;k [kk|kr dWfY'k;e fiMksysV 500 xzW@Vu izek.kkr iqjfoY;kus QqqVysY;k vaM;kaph la[;k deh gksrs i.k i{kkaP;k mRiknu {kersr dks.krhgh ok< gksr ukgh-

1.	**Project Title**	Evaluation of two different emulsifiers for different sources of oils in broiler diets.
	Investigators	Dr. G. D. Chavan, Dr. P. E. Avari, Dr. D. N. Desai, Prof. Dr. A. S. Ranade and
	Name of the college	Mumbai Veterinary College
	Recommendation	It is recommended to use emulsifier having HLB value of 7 in broiler diet containing oil with HLB value of 7 to 10 to ensure better utilization.
	□□□□□□	czkW;yj i{;kaP;k [kk|kr [kk|kr 7 rs 10 HLB eqY; vlysys rsy okijY;kl HLB eqY; 7 vl.kkjs bZeyflQk;j okij.ks tkLr mi;ksxh Bjrs-

Year 2018

1.	**Project Title**	Comparative study of combination of different litter materials on the performance of broilers
	Investigators	Dr. A. R. Narwade ,Dr. P. E. Avari,Dr. D. N. Desai, Prof. Dr. A. S. Ranade and
	Name of the college	Mumbai Veterinary College
	Recommendation	It is recommended that for rearing broiler birds, it is useful to mix rice husk with 50% soybean husk or 75% jowar husk as litter material and

		it is more beneficial to use 75% jowar husk for getting better production performance and profits.
	□□□□□□	ekaly i{;kaP;k lax¨iukr xknhek/;e Eg.kwu HkkRkkP;k rwlkr 50% izek.kkr l¨;kkchups rwl fdaok 75% izek.kkr Tokjhps rwl felGwu okij.¨ fgrkog Bjrs vkf.k 75% Tokjhps rwl felGY;kl i{;kaP¨ mRiknu o uQk ok<fo.¸kkP¸kk n`"Vhus tkLr mi;ksxh Bjrs-

Year 2019

1.	**Project Title**	Supplementation of protease enzyme in broiler diets with different sources of protein
	Investigators	Dr. D. N. Desai and Prof. Dr. A. S. Ranade
	Name of the college	Mumbai Veterinary College
	Recommendation	1. It is recommended to use protease enzyme with protease activity of minimum 75,000 PROT/ g @ 200 g/ T in the broiler diets based on corn-soybean for better production performance and higher profit margins. 2. It is recommended to use protease enzyme with protease activity of minimum 75,000 PROT/ g @ 200 g/ T in the broiler diets with replacement of soybean extraction protein with sunflower extraction protein at 15% level for better production performance and higher profit margins. 3. It is recommended to use protease enzyme with protease activity of minimum 75,000 PROT/ g @ 200 g/ T in the broiler diets with replacement of soybean extraction protein with rapeseed extraction protein at 5% levelfor comparable production performance and higher profit margins. 4. It is recommended to use protease enzyme with protease activity of minimum 75,000 PROT/ g @ 200 g/ T in the broiler diets with 5% reduction in crude protein level for better performance and higher profit margins.
	□□□□□□	1- mRiknu{kersr ok< o mRiknukrhy fdQk;r'khji.kk ok<.;klkBh ekaly i{;kaP;k edk o lks;chu;qDr [kk|ke/;s izksVh,tph dk;Z{kerk fdeku 75]000 izkWV ,dd@xzWe vlysys izksVh,t fodj 200 xzWe izfr Vu [kk| izek.kkr okij.;kph f'kQkjl dj.;kr ;sr vkgs- 2- mRiknu{kersr ok< o mRiknukrhy fdQk;r'khji.kk ok<.;klkBh ekaly i{;kaP;k [kk|ke/;s lks;chu ,DlVWªD'ku izfFkuka,soth 15 VDds izek.kkr lw;ZQwy ,DlVWªD'kue/khy izfFkukapk okij d:u izksVh,tph dk;Z{kerk fdeku 75]000 izkWV ,dd@xzWe vlysys izksVh,t fodj 200 xzWe izfr Vu [kk| izek.kkr okij.;kph f'kQkjl dj.;kr ;sr vkgs- 3- mRiknu{kersr ok< o mRiknukrhy fdQk;r'khji.kk ok<.;klkBh ekaly i{;kaP;k [kk|ke/;s lks;chu ,DlVWªD'ku izfFkuka,soth 5 VDds izek.kkr jkbZ ,DlVWªD'kuizfFkukapk okij d:u izksVh,tph dk;Z{kerk fdeku 75]000 izkWV ,dd@xzWe vlysys izksVh,t fodj

		200 xzWe izfr Vu [kk| izek.kkr okij.;kph f'kQkjl dj.;kr ;sr vkgs- 4- mRiknu{kersr ok< o mRiknukrhy fdQk;r'khji.kk ok<.;klkBh ekaly i{;kaP;k [kk|ke/;s 5 VDds izek.kkr izfFkukaph ek=kk deh d:Uk izksVh,tph dk;Z{kerk fdeku 75]000 izkWV ,dd@xzWe vlysys izksVh,t fodj 200 xzWe izfr Vu [kk| izek.kkr okij.;kph f'kQkjl dj.;kr ;sr vkgs-

1.	**Project Title**	Utilization of proteins from shellfish industry processing waste in broiler diets
	Investigators	Dr. P. E. Avari and Prof. Dr. A. S. Ranade
	Name of the college	Mumbai Veterinary College
	Recommendation	1. It is recommended to use the proteins from shellfish industry processing waste sprayed on de-oiled rice bran at 25% levelas part replacement of soybean meal in broiler diets. 2. It is recommended to use the proteins from shellfish industry processing waste sprayed on sunflower extraction at 25% level as part replacement of soybean meal in broiler diets with enzymes. 3. It is recommended to usethe proteins from shellfish industry processing waste sprayed on de-oiled rice bran at 25% level as protein replacement in broiler diets. 4. It is recommended to usethe proteins from shellfish industry processing waste sprayed on sunflower extraction at 25% level as protein replacement in broiler diets.
	□□□□□□	1. ekaly i{;kaP;k [kk|ke/;s 'ka[koxhZ; eRL;kaP;k izfØ;snjE;ku miyC/k >kysY;k VkdkÅ nzoinkFkkZae/khy izfFkukapk rkanGkP;k dksaM;koj Qok#u osf"Vr rkanGkpk dksaMk 25 VDds izek.kkr lks;kfcu fey,soth okij.;kph f'kQkjl dj.;kr ;sr vkgs- 2. ekaly i{;kaP;k [kk|ke/;s 'ka[koxhZ; eRL;kaP;k izfØ;snjE;ku miyC/k >kysY;k VkdkÅ nzoinkFkkZae/khy izfFkukapk lw;ZQwy ,DLVªWDV'kuoj Qok#u osf"Vr lw;ZQwy ,DLVªWDV'ku25 VDds izek.kkr lks;kfcu fey,soth okij djrkukfodjkapk lekos'k [kk|kr okij.;kph f'kQkjl dj.;kr ;sr vkgs- 3. ekaly i{;kaP;k [kk|ke/;s 'ka[koxhZ; eRL;kaP;k izfØ;snjE;ku miyC/k >kysY;k VkdkÅ nzoinkFkkZae/khy izfFkukapk rkanGkP;k dksaM;koj Qok#u osf"Vr rkanGkpk dksaMk lks;kfcu fey izfFkukaP;k,soth25 VDds izek.kkr okij.;kph f'kQkjl dj.;kr ;sr vkgs- 4. ekaly i{;kaP;k [kk|ke/;s 'ka[koxhZ; eRL;kaP;k izfØ;snjE;ku miyC/k >kysY;k VkdkÅ nzoinkFkkZae/khy izfFkukapk lw;ZQwy ,DLVªWDV'kuoj Qok#u osf"Vr lw;ZQwy ,DLVªWDV'kulks;kfcu

		fey izfFkukaP;k,soth25 VDds izek.kkr okij.;kph f'kQkjl dj.;kr ;sr vkgs-

1.	**Project Title**	Effect of dietary supplementation of phospholipids on egg production and egg quality in layers
	Investigators	Mr. N. V. Khuje and Dr. P. E. Avari
	Name of the college	Mumbai Veterinary College
	Recommendation	1. It is recommended that, supplementation of phospholipids (Lysophosphotidylcholine) @ 750 g/T in the diets of layers is beneficial for recording better production performance with comparable profits in the last phase of production. 2. It is recommended that, supplementation of phospholipids (Lysophosphotidylcholine) @ 1 kg/T in the diets of layers beneficial in improving egg quality in the last phase of production.
	□□□□□□	1. mRiknuP;k 'ksoVP;k VI;kr vaMh mRiknukoj pkaxyk ifj.kke gksÅu iqjslk uQk feG.;klkBh ysvj i{;kaP;k [kk|kr QkWLQksfyfiMl 750 xzW@Vu çek.kkr felG.;kPkh f'kQkjl dj.;kr ;sr vkgs- 2. mRiknuP;k 'ksoVP;k VI;kr vaM;kaP;k xq.koRrsoj pkaxyk ifj.kke gks.;klkBh ysvj i{;kaP;k [kk|kr QkWLQksfyfiMl 1 fd @Vu çek.kkr felG.;kPkh f'kQkjl dj.;kr ;sr vkgs-

Year 2020

1.	**Project Title**	Study of replacement of rice husk with corn cob as a litter material on the performance of broilers
	Investigators	Dr. D. N. Desai,, Prof. Dr. A. S. Ranade and Dr. P. E. Avari
	Name of the college	Mumbai Veterinary College
	Recommendation	It is recommended to use acidifier treated corn cob as litter material for broilers for improving production performance.
	□□□□□□	ekaly i{;kaP;k mRiknukrhy ok<hlkBh vWflMhQk;j;qDr dkWuZdkWc xknhek/;e Eg.kwu okij.;kph f'kQkjl dj.;kr ;sr vkgs-

Year 2022

1.	**Project Title**	Effect of Bacteriophages on production performance and gut health in broilers
	Investigators	Dr. D. N. Desai, Prof. Dr. A. S. Ranade and Dr. P. E. Avari
	Name of the college	Mumbai Veterinary College
	Recommendation	1. It is recommended to use bacteriophage product containing a mixture of 6 lytic bacteriophages against *Salmonella* at concentration of $1x10^8$ PFU/ml at a dose of 0.026 ml per bird every alternate day on second and fourth week in drinking water for

		improving the productive performance and higher profit margins in broilers. 2. It is recommended to use bacteriophage product containing a mixture of five lytic bacteriophages against *Escherichia coli* at a concentration of 1 x 10^8 PFU/ml at the dose rate of 0.01 ml per bird every alternate day from 0 to 35 days in drinking water for improving the productive performance and higher profit margins in broilers.
	□□□□□□	1- ekaly i{;kaP;k mRiknukrhy o u¶;krhy ok<hlkBh lkyeksusYyk fo:n~/k vl.kk&;k lgk yk;Vhd 1 x 10^8PFU/ml izek.kkrhy cWDVfj;ksQktp ,d fnolkvkM 0.026 feyh- izfri{kh izek.ks nql&;k o pkSF;k vkBoM;kar okij.;kph f'kQkjl dj.;kr ;sr vkgs- 2- ekaly i{;kaP;k mRiknukrhy o u¶;krhy ok<hlkBh b- dksyk; fo:n~/k vl.kk&;k ikp yk;Vhd 1 x 10^8PFU/ml izek.kkrhy cWDVfj;ksQktpk ,d fnolkvkM 0-01 feyh izfri{kh izek.ks 0 rs 35 fnol okij.;kph f'kQkjl dj.;kr ;sr vkgs-