

CURRICULUM – VITAE



Name : **ARUN KUMAR JHIRWAL**

Father's Name : Mr. MAHIPAL SINGH

Marital status : Married

Official Address : Department of Poultry Science, CVAS, Bikaner
Rajasthan University of Veterinary and Animal Sciences,
Bikaner-334001 (Rajasthan) INDIA

Residential Address : E-2, Veterinary College Staff Colony-II,
Bikaner - 334001, Rajasthan, India

e-mail : dr.arunjhirwal@gmail.com

Telephone No : +91-9461300587

Date of Birth : 07.11.1981

ACADEMICS :

S.No.	Examination	Year	Subject	University
1.	Ph.D.	2016	Livestock Production Management	RAJUVAS, Bikaner
2.	M.V.Sc.	2011	Livestock Production Management	RAJUVAS, Bikaner
3.	B.V.Sc. & A.H	2009	Veterinary & Animal Science	SKRAU, Bikaner
4.	NET	2016	Livestock Production Management	ICAR, New Delhi

EMPLOYMENTS AND POSITIONS HELD:

S.No	Post	Office	From	To	Nature of Duties
1.	Assistant Professor	LPM, CVAS, Bikaner	06-12-2014		Teaching Research Extension
2.	Assistant Professor	PSc., CVAS, Bikaner	29-06-1989	26-07-1998	Teaching Research Extension
3.	Officer Incharge	PVK, Suratgarh RAJUVAS, Bikaner	09-05-2023	22-02-2024	Teaching Extension

TOTAL EXPERIENCE :

Research : 10 Years
Teaching : 10 Years
Extension : 10 Years

MERITS:

1. Course- Coordinator of ICAR sponsored Winter school on "Conservation and Promotion of Indigenous Breeds of Livestock" from Oct. 30 to Nov. 19, 2017
2. Course- Coordinator of ICAR sponsored Winter school on "Current Status, Emerging Issues and Future Scenario Regarding Conservation of Indigenous Breeds of Livestock" from 05 to 25, Nov. 2019.
3. Organised Agriculture Skill Council of India sponsored 30 days training on "Small Poultry Farmer" as Master trainer from 15.02.19 to 16.03.19
4. Organised Agriculture Skill Council of India sponsored 30 days training on "Small Poultry Farmer" as Master trainer from 2-20.03.2020 and 07-17.01.2021.
5. Member of Inspection committee appointed by VCI on College of Veterinary Science, Prodattur, SVVU, Tirupati from 27th to 29th September 2021.
6. Delivered series of lectures on Poultry Production Management as Guest faculty at GADVASU, Ludhiana from 05-09.06.2023
7. Course- Coordinator of 07 days training programme for farmers on "Commercial Poultry Farming" organised by SKRAU, Bikaner from 18-24.05.23.

AWARDS:

1. Awarded Rajiv Gandhi National Fellowship for Ph.D by UGC in 2013.
2. A Certificate of appreciation by RAJUVAS, Bikaner for getting approval from ICAR for organizing 21 days Winter School on "Conservation and Promotion of Indigenous Breeds of Livestock".
3. A certificate of appreciation by RAJUVAS for untiring efforts and constant support in organization of 17th AGRIUNIFEST 2016-17.
4. Vice Chancellor award for Efficient management of Poultry Unit, CVAS, Bikaner

ADVISOR:

1. Major Advisor of 01 Ph.D Student
2. Major Advisor of 10 M.V.Sc. Students
3. Member of Advisory Committee of 22 M.V.Sc. and Ph.D students of various subjects in agricultural disciplines.

MEMBERSHIP OF SCIENTIFIC ORGANISATION:

1. Life Member of Indian Society of Animal Production and Management (ISAPM)
2. Life Member of Veterinary Practitioner

WORKSHOP/SEMINAR/SYMPOSIUM/CONFERENCE ETC, ATTENDED:

1. Participated in national livestock conference on "Carrier Opportunities Abroad- A Veterinarian Prospective" organized by CVAS, Mhow on 13.06.2020
2. Participated in national workshop on "Improvement of Livestock Productivity and Food Security through Milk and Milk Products" organized by CVAS, Mhow on 01.06.2020
3. Participated in national webinar on "Dairy industry in India: opportunities and challenges in perspective of "COVID-19" pandemic organized by NDVSU-JABALPUR on 30th June 2020
4. Successfully completed One Week Online Training Programme on "Personality Development, Effective Communication Skills and Stress Management" under the National Agricultural Higher Education Project (NAHEP) of Indian Council of Agricultural Research (ICAR), New Delhi during April 14-18, 2020.
5. Participated in national webinar on "Sustainable Dairy Production through Breeding Interventions" organized by SDAU-DANTIWADA on 30th June 2020
6. Participated in national webinar on "SKILL DEVELOPMENT AND ENTREPRENEURSHIP" organized by College of Veterinary Science & A. H., Jabalpur on 30 May 2020.
7. Participated in International Webinar on Role of Poultry Sector in Boosting the Post COVID Indian Economy - organized by College of Avian Sciences and Management, Kerala Veterinary and Animal Sciences University, Thiruvazhamkunnu, Palakkad, Kerala, 678601 and ICAR-NAHEP Innovation Grant from 28-07-2020 to 30-07-2020.
8. Participated in NATIONAL WEBINAR on "Present Challenges and Future Prospects of Dairy Sector in Eastern India" on 17th October 2020 organized by ICAR-National Dairy Research Institute Eastern Regional Station, Kalyani
9. Participated in national webinar on "Importance of COVID 19 on Dairying, Poultry and Fisheries: National Perspective" organized by WBUAFS, WEST BENGAL on 29.08.2020
10. International Webinar on "Current Status and Future Scope (Post-Covid) of Poultry Industry with Special Reference To Ratites (Ostrich)" organized by the Department of Poultry Science, Madras Veterinary College on 16th October 2020.
11. Participated in live International Webinar on "Nutritional Intervention for Improving Production Performance of Dairy Animals" organized by Department of Animal Nutrition, College of Veterinary Science & A.H., Anjora, Chhattisgarh Kamdhenu Vishwavidyalaya, Durg. (C.G.) INDIA
12. Participated in Webinar on "Revisiting Backyard and Small Scale Poultry Production in India with Industrial approach" organized by ISAPM on 20.10.2020
13. Participated in National Webinar on 'Prospects and Challenges in Poultry Sector: Small Scale Farming to Large Commercial Enterprises' conducted by College of Veterinary Science & Animal Husbandry, Rewa (M.P.) on 31.07.2020
14. Participated in National Webinar on 'Eggs and Poultry Meat in New Normal' conducted by College of Veterinary Science & Animal Husbandry, Rewa (M.P.) on 31.07.2020

15. Participated in International webinar on "Newer Strategies to Mitigate Parasitic and Bacterial Diseases in Livestock and Poultry for Better Production and Trade" organized by TANUVAS, TAMIL NADU on 11.11.20.
16. National Webinar on "Entrepreneurship & Market Led Extension for Livestock Development" organized by Livestock Innovation, Knowledge & Entrepreneurship Skill Cell (LIKES)CVAS, Bikaner (Rajasthan University of Veterinary and Animal Sciences Bikaner) on 03/11/2020
17. Participated in two days National Webinar on "Opportunities in Livestock and Poultry Sector for Entrepreneurship Development and Sustainable Livelihood" jointly organized under ICAR Plan Scheme SC-SP by Skill Development Centre, Maharashtra Animal & Fishery Sciences University, Nagpur & G. H. Rasoni University, Saikheda (M.P.) during 4th & 5th September, 2020, at Nagpur.
18. Participated in the national webinar on "Management of Parasitic Diseases in Domestic Animals: A Novel Approach" Organized by the Department of Veterinary Parasitology, College of Veterinary Science & A.H., NDVSU, Jabalpur from 06th to 8th August, 2020.
19. Participated in the national webinar on "Backyard Poultry: An opportunistic rural venture for employment and empowerment" organized by the Uttar Banga Krishi Viswavidyalaya, Pundibari, Cooch Behar, West Bengal and sponsored by NAHEP-IG, ICAR on 13.10.2020.
20. Participated in the International e-Conference on "Paradigm shift in Animal Disease Diagnostics: Veracious path in Disease prevention and Control" organized by Department of Veterinary Microbiology and Department of Veterinary Public Health and Epidemiology, Veterinary College and Research Institute, Tirunelveli from 07.10.2020 to 09.10.2020.
21. Participated in Workshop on "Trade in F & V Products and Dairy Commodities" on 15.09.20 at Centre for Agricultural Market Intelligence, AAU, Anand.
22. Key note speaker in national webinar on "Sustainability of Agriculture Sector in Present and Post Pandemic Situation" organized by School of Agricultural Sciences, CPU KOTA on 11.09.20
23. Participated in national livestock conference on "Futuristic approach to viable animal production vis-à-vis climate and calamity challenges" organized by ISAPM at CVSc & A.H OUAT, Bhubaneswar from 18-20, Jan. 2023
24. Participated in International Conference on Blended Learning Ecosystem for Higher Education in Agriculture held during 21-23, March 2023 at New Delhi
25. Participated in online international Veterinary Workshop on "Globalization of Veterinary Ayurveda" conducted by IVA in Collaboration with WAF from 23-30, Oct. 2022.
26. Acted as Rapporteur in the Conference on "Avian Health: Challenges and Opportunities" organised by World Veterinary Poultry Association (WVPA) India and the ICAR-National Institute of Animal Nutrition and Physiology (NIANP), Bengaluru from February 15–16, 2024.
27. Acted as Rapporteur in the 2nd Veterinary and Animal Science Congress and National Symposium on "Technological Intervention for Improving Animal Health and Productivity" organised by Apollo College of Veterinary Medicine, Jaipur and Association of Animal Scientists from February 17–19, 2024

PROFESSIONAL TRAINING COURSES :

Title of the training/Course	Duration with dates	Sponsored/Organized by
21 days training programme on "Exploring the technological approaches for enhancing the nutritive value and marketing of poultry products"	Nov 26 to Dec 18, 2018	ICAR and TANUVAS
Orientation training programme	28.03.19-17.04.19	RAJUVAS, BIKANER
Six week online agMOOCs course on "Employment Generation among Rural Youth through Agripreneurship"	30.07.2019	IIT, Kanpur
MOOCs Programme on Innovative Ideas for Entrepreneurship Development in Livestock Sector	14.09. 2020 to 21.09.2020	MANAGE, Hyderabad, India
21 days online training-cum-orientation programme on "Advances in Clinico-pathological Diagnosis of Farm Animals Diseases: A Radical Approach in Doubling Farmers' Income"	05-25.02.2021.	Department of Veterinary Pathology, College of Veterinary Science & A.H., Rewa (M.P.), India
21 days national orientation course on "Teaching Learning Evaluation Technology Programme (TLETP-2023)"	5-25.04.2023	ICAR- Agricultural Technology Application Research Institute
Six Week agMOOCs course on "Practical animal nutrition for augmenting livestock and poultry productivity"	July 11-Aug. 31, 2023.	COMMONWEALTH OF LEARNING, Canada and Madras Veterinary College, TANUVAS, Chennai
Six Week agMOOCs course on "Current trends in treatment and control of parasitic diseases of livestock and poultry"	19 th December 2023 to 9 th February 2024	COMMONWEALTH OF LEARNING, Canada and Madras Veterinary College, TANUVAS, Chennai
ICAR sponsored short course on "Recent Development on Livestock Phenome Data Recording, Analysis and Interpretation in the Era of Genomics"	03-12.01.24.	ICAR-NRCC, Bikaner.

PUBLICATIONS:

1. No. of Research Paper Published in National / International Journals :	45
2. No. of Review articles :	04
3. Paper Present in National / International Conference / Seminars :	12
4. Manual / Booklets :	08

TV RADIO TALKS:

▪ DD kisan :	01
▪ All India Radio, Akaswani, Bikaner :	06

RESEARCH PROJECTS:

1. Center for Conservation of Animal Biodiversity - Co- Principal Investigator from 17.12.2014 to 29.06.24

PUBLICATIONS:

LIST OF PUBLICATIONS NATIONAL / INTERNATIONAL JOURNAL

1. Jhirwal, A.K., Preethi, S. and V. Singh (2017). Current status of Indian livestock and poultry and their contribution to Indian economy. ICAR Sponsored Winter School on Conservation and Promotion of Indigenous Breeds of Livestock, Training Manual, P 11-15.
2. V. Singh, S.C. Goswami, V.K. Choudhary, P. Choudhary and A.K. Jhirwal (2018). Study on the Relationship between the Selected Traits of the Gir Cattle Breeders and Their Knowledge Level about Conservational Practices. Journal of Animal Research, 8(5): 873-876.
3. V. Singh, S.C. Goswami, V.K. Choudhary, P. Choudhary, A.K. Jhirwal, M.L. Choudhary and S.S. Nirwan (2018). Housing and Health Care Management Practices Followed by Gir Cattle Owner for Conservation of Gir Cattle in Ajmer District of Rajasthan. Advances in Animal and Veterinary Sciences, 6(6): 265-270.
4. Manish Songara, Arun Kumar Jhirwal, Subhash Chander Goswami, Ram Avtar Legha, Vijay Kumar, Vikramjit Singh and Geetesh Mishra (2018). Growth and digestibility of gross nutrients by azolla incorporation in Marwari stallion. International Journal of Chemical Studies, 6(5): 3215-3218.
5. V. Singh, S.C. Goswami, A.K. Jhirwal, V. Kumar, P. Choudhary and K. Mohan (2018). Breeding and Feeding Management Practices Followed by Gir Cattle Owner for Conservation of Gir Cattle in Ajmer District of Rajasthan. Ruminant Science, 7(1): 133-136.
6. V. Singh, S.C. Goswami, A.K. Jhirwal, V. Kumar, D.S. Manohar, K. Mohan, S. Meel and P. Choudhary (2018). Constraints Perceived by Gir Cattle Breeders in Conservation of Gir Cattle in Ajmer District of Rajasthan. Veterinary Practitioner, 19(2): 297-298.
7. V. Singh, S.C. Goswami, V.K. Choudhary, P. Choudhary, A.K. Jhirwal and R. Shringi (2018). Milking and Calf Rearing Management Practices Followed by Gir Cattle Owners for Conservation of Gir Cattle in Ajmer District of Rajasthan. International Journal of Livestock Research, 8(12): 160-167.
8. K. Mohan, S.C. Goswami, A.K. Jhirwal, V. Kumar, V. Singh and P. Choudhary (2018). Housing And Milking Management Practices Followed By Rath Cattle Owners For Conservation Of Rath Cattle In Bikaner District Of Rajasthan. Ruminant Science, 7(1): 113-116.
9. K. Mohan, S.C. Goswami, A.K. Jhirwal, V. Kumar, V. Singh, D.S. Manohar, S. Rana, S. Meel and P. Choudhary (2018). Breeding and Feeding Management Practices Followed by Rath Cattle Owner for Conservation of Rath Cattle in Bikaner District of Rajasthan. Veterinary Practitioner, 19(2): 283-285.
10. Jhirwal A.K., Goswami. S.C., Kumar. V, V. Singh and G. Mishra (2018). Influence of Socio-Economic Factors on the Knowledge Level of Poultry Entrepreneurs in Ajmer district of Rajasthan. International Journal of Livestock Research, 8(12): 168-174.
11. A.K. Jhirwal, R.S. Choudhary, S.C. Goswami, V. Kumar, V. Singh and G. Mishra (2018). Effect of Feeding Synthetic and Herbal Vitamin E on Performance of Broiler Chicks in Hot Arid Zone of Rajasthan. Journal of Animal Research, 8 (6): 1053-1057.
12. A.K. Jhirwal, V. Singh and G. Mishra (2018). An overview of common livestock management strategies during disaster. Souvenir of National Seminar on "Recent Development and strategies for Management of Disaster in Animals".
13. Jhirwal A.K., Choudhary R.S., Goswami S.C., Kumar V., Mishra G. and Singh V. (2018). Effect of feeding different levels of herbal vitamin E on performance of broiler chicks in hot arid zone of Rajasthan. Indian Journal of Poultry Science, 53(3): 278-281.
14. Budhi Prakash Meena, Subhash Chander Goswami, Vijay Kumar, Arun Kumar Jhirwal, Vikramjit Singh and Vikas Sharma (2019). Study the Relationship of BCS with Milk Composition and Reproductive Performance. Int.J.Curr.Microbiol.App.Sci. 8(01): 228-235.

15. Meena, B.P., Goswami, S.C., Kumar, V., Jhirwal, A.K., Singh, V. and Sharma, V. (2019). Study the relationship of body condition scores with production performance in Kankrej cattle. *Journal of Entomology and Zoology Studies*, 7(1): 1465-1468.
16. S. Preethi, A.K. Jhirwal, S.C. Goswami, R.A. Legha, V. Kumar and V. Singh (2019). Effect of Ambient Temperature and Relative Humidity on the Foal's Skin Surface Temperature under North and South Facing House in Semi-Arid Regions. *Veterinary Practitioner*, 20(1): 135-137.
17. Sharma, V., Jhirwal, A. K., Goswami, S. C., Choudhary, V. K., Singh, V. and Meena, B. P. (2019). Effect of Body Condition Score on Milk Composition and Reproductive Performance of Sahiwal Cattle. *International Journal of Livestock Research*, 9(12), 59-67. (10.5455/ijlr.2019100203120)
18. Sharma, V., Jhirwal, A.K., Goswami, S.C., Kumar, V., Singh, V. and Meena, B.P. (2019). Effect of precalfing BCS on postpartum BCS and body weight change of Sahiwal cattle. *Explor. Anim. Med. Res.*, 9(2): 158-161.
19. Sharma, V., Jhirwal, A.K., Goswami, S.C., Choudhary, V.K., Singh, V. and Meena, B.P. (2020). Effect of body condition score (BCS) on production performance of Sahiwal cattle. *Journal of Animal Research*, 10(1): 53-57.
20. V. Singh, S.C. Goswami, A.K. Jhirwal, V.K. Choudhary and V. Kumar (2020). Effect of challenge feeding on body condition scores and calf birth weight of Sahiwal cattle. *International Journal of Chemical Studies*, 8(1): 1857-1860. (10.22271/chemi.2020.v8.i1aa.8534)
21. V. Singh, S.C. Goswami, A.K. Jhirwal, V.K. Choudhary and M. L. Choudhary (2020). Effect of Challenge Feeding on Prepartum and Postpartum Dry Matter Intake in Sahiwal Cattle in the Arid Region of Rajasthan. *Indian J. Anim. Nutr.*, 37 (1): 14-20. (doi: 10.5958/2231-6744.2020.00003.1)
22. B. P. Meena, S. C. Goswami, V. Kumar, A. K. Jhirwal, V. Singh and V. Sharma (2020). Study The Changes In Body Condition Score (Bcs) Pattern During Pre-Partum and Post-Partum In Kankrej Cattle. *Veterinary Practitioner*, 21 (1): 129-130
23. R. Mohata, A.K. Jhirwal, S.C. Goswami, V. Singh, D.S. Rajput and M. Mathur (2020). Effect of dietary supplementation of neem (*azadirachta indica*) and tulsi (*ocimum sanctum*) along with different bedding materials on carcass characteristic of broilers. *Veterinary Practitioner* 21(2): 315 – 19.
24. Singh, V., A.K. Jhirwal, S.C. Goswami, P. Choudhary and V.K. Choudhary. Effect of challenge feeding on reproduction performance and periparturient health of Sahiwal cattle in the arid region of Rajasthan. *J. Environ. Biol.*, 42, 572-576 (2021).
25. V. Singh, S.C. Goswami, V. Kumar, P. Choudhary and A.K. Jhirwal (2021). Socio-economic Status of the Gir Cattle Owners in Ajmer District, Rajasthan. *Indian journal of Extension Education*, 57(2): 219-223. (DOI: 10.5958/2454-552X.2021.00088.8)
26. N.K.Poonia, A.K.Jhirwal, S.C.Goswami, V.K.Choudhary and G.Choudhary (2021). Effect on body weight of newly born calves of micronutrient supplemented kankrej cows in pre partum and post partum Stage. *Veterinary Practitioner Vol. 22 No. 2*: 183-185.
27. Kusumlata Jhahria, Arun Kumar Jhirwal, Subhash Goswami, Amit Kumar, Anuj Kumar, Praveen Kumar Kaushik, N. K. Poonia, Praveen Pilania, Pushpa Lamba and Lokesh Kumar (2022). Effect of various stocking densities along with the dietary Supplementation of Giloy (*Tinospora cordifolia*) and Moringa (*Moringa oleifera*) on the carcass characteristics of broiler chicks. *Veterinary Practitioner Vol. 23 No. 1*: 120-123.
28. Pushpa Lamba, Arun Kumar Jhirwal, S.C. Goswami, Vivek Saharan, Narendra Kumar Poonia, Anuj Kumar and Praveen Pilaniya(2022). Behavioural pattern of Sahiwal calves under different roof modifications during summer months in arid region of Rajasthan. *Veterinary Practitioner Vol. 23 No. 1*: 137-141.
29. Anamika Sharma, Vijay Kumar, A. K. Jhirwal, S. C. Goswami, Tara Bothra and Vikramjit Singh (2022). Effect of Dietary Supplementation of Tulsi (*Ocimum sanctum*) and Moringa (*Moringa oleifera*) Leaf Powder Along with Different Bedding Materials on Carcass Characteristics of Japanese Quail in Arid Region of Rajasthan. *Journal of Animal Research*, 12 (1): 47-53.
30. Geetesh Mishra, S C Goswami, Sanjita Sharma , A K Jhirwal And Ravtaram (2022). Seasonal and lactational variations in fatty acid profile of milk in indigenous cattle. *Indian Journal of Animal Sciences* 92 (11): 1355–1359.
31. Subhita Kumari, Vijay Kumar and Arun Kumar Jhirwal (2022). A study on the effect of different floor space allowances on the physiological responses, hemato- biochemical Parameters in magra ram lambs. *Veterinary Practitioner Vol. 23 No. 2*:410-411.
32. Pushpa Lamba, Arun Kumar Jhirwal, Vivek Saharan, Praveen Pilaniya, Narender Kumar Poonia and Anuj Kumar(2022). Effect Of Different Roof Modifications on Growth Performance Of Sahiwal Calves In Arid Region Of Rajasthan. *Ruminant Science Vol. 11 No 2*, p 313-316.
33. Lalita Deora, Tara Bothra, S.C. Goswami, A.K. Jhirwal, D. Jain and Priyanka Kumari (2022). Effect of bedding materials on moisture% haematological and carcass characteristics of broiler chicks. *Veterinary Practitioner Vol. 23 No. 2*: 421-423
34. Anita, A.K. Jhirwal, S.C. Goswami, V. Singh, Pushpa Lamba and Anuj Kumar (2022). Study the effect of interaction of dietary supplementation and different bedding materials on the performance and Carcass characteristics of broilers. *Veterinary Practitioner Vol. 23 No. 2*: 417-420.
35. Abhishek Joshi, Nirmala Saini, Arun Kumar Jhirwal, R.K. Dhuria and S.C. Goswami (2023). An assessment of the effect of herbal additives amla (*Embllica officinalis*) and giloy (*Tinospora cordifolia*) on wool yield and quality of Magra lambs in the semi-intensive management system under arid zone of western Rajasthan. *Biological Forum – An International Journal* 15(8): 227-230
36. Abhishek Joshi, Nirmala Saini, Arun Kumar Jhirwal, Umesh Kumar Prajapat and S.C. Goswami (2023). Effect of herbal additives amla (*Embllica officinalis*) and giloy (*Tinospora cordifolia*) on physiological parameters of Magra lambs under semi-intensive management system in the arid zone of Rajasthan. *Biological Forum – An International Journal* 15(8): 215-218.

37. Praveen Pilaniya, S.C. Goswami, A. K. Jhirwal, Lokesh Kumar and Puspha(2023). Effect of different bedding material and dietary supplements on hemato-biochemical parameters of kadaknath chicken. *Veterinary Practitioner* Vol. 24(1),125-129.
 38. Satendra Kumar Yadav, S.C. Goswami, Ashok Kumar, Arun Kumar Jhirwal, Jayesh Vyas, Kusumlata Jhahria, Praveen Pilaniya(2023). Effect of moringa oleifera leaves extract supplementation on serum glucose of marwari rams. *Veterinary Practitioner* Vol. 24(1),130-133.
 39. Ram Niwas, Charu Sharma, Nirmal Singh Dahiya, Kuladip Prakash Shinde and Arun Jhirwal(2023). Camel milk and urine based nanobodies: promising avenue to overcome world emerging diseases. *Veterinary Practitioner* Vol. 24(2), 164-170.
 40. Narender Kumar Poonia, Vijay Kumar, Garima Choudhary, Arun Kumar Jhirwal and Tara Bothra (2024). Effects of Ascorbic Acid, Giloy (*Tinospora cordifolia*) along with Various Bedding Materials on Japanese Quail Egg Quality Attributes. *Advances in Research* Volume 25, Issue 3, Page 69-76.
 41. Pushpa Lamba, Vivek Saharan, SC Goswami, AK Jhirwal and Budhi Prakash Meena (2024). Effect of stocking density on Hemato-biochemical parameter of Japanese quail. *International Journal of Veterinary Sciences and Animal Husbandry* Volume 9(1): 652-655
 42. S. Siyak, M.L. Choudhary, A.K. Jhirwal, R. Rewar, M.K. Dhaka, V. Kumar and Kusum Lata(2024). Effect of different bedding materials on hemato-biochemical parameters in aseel and kadaknath. *Veterinary Practitioner* Vol. 25(1),123-125.
 43. Jyoti Srivastav, Arun Kumar, Tushar Saxena and Jagriti Srivastav (2024). Effect of different roofing patterns on behavioural responses of Magra lambs in arid region. *International Journal of Veterinary Sciences and Animal Husbandry* Volume 9(1): 241-243.
 44. V. Singh, A. K. Jhirwal, S. C. Goswami and P. Choudhary (2024). Impact of challenge feeding on milk composition and peak milk yield of Sahiwal cattle in the arid region of Rajasthan. *Indian J Anim Health* DOI: <https://doi.org/10.36062/ijah.2024.05124>
 45. Naushali Gujar, Rajni Arora, Basant Bais, A. K. Jhirwal (2024). Effect of Dietary Supplementation of Aloe Vera and Amla Fruit Powder on the Growth Performance of Broiler Chicken. *Indian J. Anim. Prod. Manage.* 40(1), 55-58
- Review Articles:**
46. Vikramjit Singh, Poonam Choudhary, Arun Kumar Jhirwal; COVID-19: Lockdown and the Impact on Camels and Their Herders; *Inter. Journal. Medic. Vet. Sci.*, 2020, 1-1(20-24). (<https://doi.org/10.36437/ijmvs.2020.1.1.C>)
 47. Vikramjit Singh, Poonam Choudhary and Arun Kumar Jhirwal (2020). COVID-19: Zoonotic Transmission and Impact on Livestock. *OA J Ani Plant Husbandry*, 1(1): 180003.
 48. V Singh, P Choudhary and A K Jhirwal (2020). Management Approaches to Control Parasitic Infection in Livestock. *Raksha Technical Review*, 10 (1): 18-19.
 49. P Choudhary, V Singh and A K Jhirwal (2020). Parasitic Zoonotic Diseases in Livestock and Role of Management Practices to Reduce or Control of Their Emergence. *Raksha Technical Review*, 10 (1): 20-22

(A.K.Jhirwal)
Assistant Professor
Department of PSc., CVAS, Bikaner
RAJUVAS, Bikaner