

eNewsletter

ICAR-Central Avian Research Institute

Izatnagar - 243122 (UP)



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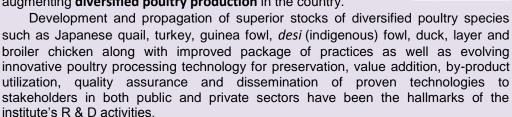
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Dr. A.B. Mandal takes over the charge of Director, w.e.f. 01.11.2017.

From the director's desk.....

The ICAR-Central Avian Research Institute (ICAR-CARI), Izatnagar, Bareilly (U.P.), since its inception on 02.11.1979 along with its Regional Centre at Bhubaneswar, has been playing a vital role by providing R & D and technological support for augmenting **diversified poultry production** in the country.



This Institute has also emerged as a leading centre for Post-graduate education in Poultry Science. Besides, it offers consultancy and training in diverse areas of poultry production, processing and marketing. The institute has been responsive and sensitive to the needs of stakeholders in both commercial and small-scale rural poultry sectors. It is vigilant to changes taking place at national and international levels to address emerging issues/ concerns and serves as a referral centre. The institute showcases its activities and salient achievements in its website.

Dear Readers, through this e-Newsletter, I would like to apprise you about latest institute's news and seek your suggestions.

Wishing you all success in your future endeavors.

(A. B. Mandal) Director



Honours & Awards

Dr. Sanjeev Kumar, Principal Scientist and **Dr. Avishek Biswas**, Senior Scientist were awarded with "**Fellow of Indian Poultry Science Association**" on 28th November 2017 during XXXIV Annual Conference of Indian Poultry Science Association (IPSACON 2017) at NIMHANS Convention Centre, Bengluru during 28-30 November 2017, organized by ICAR-NIANP.





Dr Sanjeev Kumar

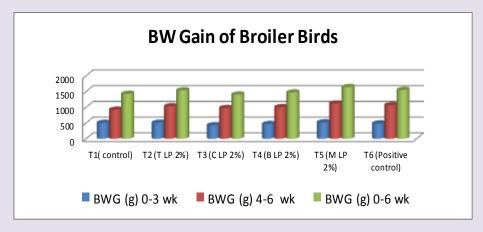
Dr Avishek Biswas

Institute's News

Research Highlights

Alternative to antibiotic growth promoter (AGP)

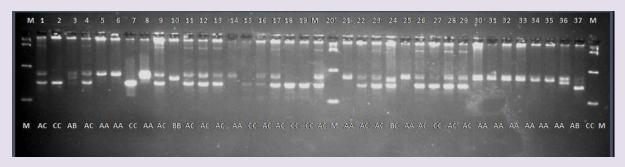
The use of Antibiotic growth promoters (AGPs) in poultry production may increase antibiotic resistance in humans and animals. Reduction in the non-therapeutic use of antibiotics is the need of the time. Phyto-chemicals are organic bioactive chemical compounds that occur naturally in plants and may affect health. Four plant leaves (Moringa, Turmeric, Curry, Beal) containing essential oil were selected as an alternative to the antibiotics. The dried leaf powder were included at two percent rate (w/w) in broiler chicken diet (four groups) and various growth parameters, immunity, blood biochemical, gut health and sensory evaluation were recorded. In growth performance, highest feed intake was recorded in the birds fed on diet containing antibiotic growth promoter. Birds fed on Moringa leaf powder containing diet recorded highest body weight gain in all growth phases and also had lower FCR in finishing phase (4-6week).



All diets containing leaf powder had better immune response as compared to basal diet. Birds fed on diet containing Moringa leaf powder had better immune response than diet containing antibiotic growth powder. Similarly all diets containing leaf powder had lower triglyceride and total cholesterol than diet with antibiotic growth promoter. Total coliform count was low for diets containing Moringa leaf powder or antibiotic growth promoter. Lactobacillus count and jejunal villus length was higher for Moringa leaf powder containing diet. So the diet containing 2% Moringa leaf powder had performed better than other treatment diets in terms of body weight gain, FCR, immune response, lipid profile, coliform and lactobacillus counts, and jejunal villi length. The other diets containing leave powders also performed better in terms of lowered lipid profile and coliform count. But in overall performance of broiler chicken, diet containing Moringa leaf powder performed better and can be considered as a green and cheap alternative to AGPs as a growth promoter in broiler chicken diet ... M.N. Sharaf Ud Din, Divya, Avishek. Biswas, A.B. Mandal, Ashim K. Biswas

Genetic polymorphism by microsatellites profiling and association analysis of layer economic traits in Rhode Island Red chicken

Microsatellites are highly abundant and randomly distributed in genome, reveal moderate to high degree of polymorphism, co-dominant inheritance pattern and has ease of identification. Hence, the present investigation was carried out in selected strain of Rhode Island Red (RIR) chicken to analyze the effects of various genetic and non-genetic factors on growth traits and figure out the allelic polymorphism at a few growth-associated microsatellite loci and their association with growth traits. Seventy-four birds of selected strains of RIR were screened for genetic polymorphism at 9 growth associated microsatellite (MS) loci and alleles were separated through 3.4% MetaPhor® agarose gel electrophoresis and their sizes were estimated with the help of Gel Doc using Quantity One software.



Allelic profiling of LEI0071 microsatellite locus in RIR chicken. Lane (from left to right): M - Low range DNA ladder, 1-37 samples. Alleles sizes were A: 348; B: 332 and C: 296 bp. The genotypes based on the microsatellite LEI0071 have been shown below the amplicons in each lane

Data on growth traits viz., age of sexual maturity (ASM), body weight at 20, 32, 36 and 40 weeks of age were analyzed by least square analysis of variance taking sire as random effect. Sire had highly significant effect (P<0.001) on age of sexual maturity only. Allelic data were analyzed by POPGENE® version 1.32 and various population genetic parameters were estimated. A total of 23 alleles were observed at studied loci with the average number of alleles per locus being 2.56±0.29. Out of nine microsatellite loci, eight showed polymorphism. Microsatellite analysis revealed 1-4 alleles with sizes ranging from 125 bp at ADL0328 to 348 bp at LEI0071, having varied frequencies. The microsatellites, LEI0071, LEI0146 and MCW0106 loci, having PIC of >0.5 are informative and may be useful in determining polymorphism and population structure in RIR chicken. Least squares analysis of variance revealed significant effect of genotypes at MCW0106 microsatellite on body weight at 20 and 32 weeks of age in pullets. Out of the eight polymorphic MS loci, the genotypes at MCW0106 locus only revealed significant differences in various growth traits. AD genotype revealed significantly higher BW20 and BW32suggesting its usefulness in marker assisted selection. Although statistically non-significant, but birds with AD genotypes revealed higher body weights at other ages too. ... Sonu Kumar Jain, Sanjeev Kumar and Amiya Ranjan Sahu



Institute Research Committee - 2017

-Main Campus, ICAR-CARI, Izatnagar

The annual Institute Research Committee (IRC) meeting of the Institute was held on Oct 12, 2017 under the chairmanship of Dr J.M. Kataria, Director, CARI, Izatnagar. Dr. Vineet Bhasin, Principal Scientist (AG&B), ICAR, Krishi Bhawan, New Delhi attended the

meeting as expert invitee. Dr Sandeep Saran, Head PME & Secretary IRC conducted the meeting which was attended by the scientists of the Institute. Dr Saran welcomed the Chairman, Dr. Bhasin, and all the participants. He briefed the IRC about the ongoing research programmes and the ongoing O&M reforms at the Institute. Dr Kataria delivered his welcome address. He exhorted the scientists to apply for awards. He emphasized to submit projects for extramural funding and to be more critical while evaluating the work carried out during the period under report. The Chairman's opening address was followed by presentations by the respective divisions/sections of the Institute. The Action Taken Report (ATR) on the last year IRC general recommendations was presented by the respective HDs and ATR on the project-wise recommendations, by the concern PIs.

-Regional Centre CARI, Bhubaneswar

The annual IRC meeting for the RC, CARI Bhubaneswar was held on 20.12.2017. The meeting was chaired by Dr A.B. Mandal, Director and attended by all the scientists of the regional Centre. Dr M.K. Padhi, PS & I/c RC welcomed the director and all the scientists to the meeting. Dr Sandeep Saran, Secretary IRC briefed the participants about the ongoing projects and the ongoing O& M reforms at the Institute. Dr Mandal, in his opening remarks, exhorted the scientists to be more proactive in responding to the queries of the Council and to submit the projects for extramural funding in order to strengthen research infrastructure at the Centre in view of the limited available resources. He also expressed his concern about regenerating the duck stock at the Centre. The scientists presented the major findings of the ongoing projects which were critically discussed during the meeting.

Institute Foundation Day

On the occasion of 39th Foundation day of the institute, several programmes were organized related to poultry farming on 2nd November 2017. Various poultry germplasm technologies developed and other activities at this Institute were displayed. Students and faculty from MJP Rohilkhand University, Delhi Public School, BBL Public School, Vishnu Inter College, Gulab Rai Inter College and several other schools/ colleges, poultry farmers and entrepreneurs from near and far places from Bareilly participated in the programme with great enthusiasm. Participants were informed with important information related to poultry business. Dr. S.C. Gupta, Joint Director (Disease control) & Joint Director (Administration) and the chief guest gave detailed information of various poultry schemes run by state government. He praised the germplasm and technologies developed by the institute and promised to help poultry farmers in the best possible manner. Dr. A.B. Mandal, Director of the institute narrated the history and development of the Institute. He also asked the youth and students to make their career in the area of veterinary, animal and poultry sciences. Besides, he ensured to provide technical support to poultry farmers and entrepreneurs. Three progressive poultry farmers, Anuj Agarwal, Afjal and Ms Yasmeen were awarded on this occasion. The program was attended by many ex-Directors and retired scientists. Dr. Sanjeev Kumar, Principal Scientist convened this programme and welcomed guests. Dr. Samir Majumdar proposed the vote of thanks. Sri. P.N. Yadav compared the program. All officers and staff helped in successful arrangement of the event with special mention of Dr. Sandeep Saran, Dr. Praveen Tyagi, Dr. Pramod Tyagi, Dr. A.S. Yadav, S.K. Bhanja, Dr. Chandra Deo

and Dr. Divya among scientists and Sri. Shafiq Ahmad and Sri. S.R. Meena, among the technical staff.





Agriculture Education Day

The birthday of first Indian union agriculture minister (1946) and the first President of India, Bharat Ratna, Dr Rajendra Prasad was celebrated as "Agriculture Education Day" on December 3, 2017. The programme was aimed to develop interest among the school and college students in agriculture, animal science, veterinary science and other allied sciences and to choose "agriculture" as their professional & research career or engage themselves in farming as agri-entrepreneurs.

Approximately, 200 participants including students from various schools/ colleges viz., Gulab Rai Inter College, Vishnu Inter College, Sacrad Hearts School, GRM School, KDM Inter college, Madhav Rao Scindhia Public school, BBL Public school etc., many of them accompanied by parents, agri-farmers and poultry farmers from far and near places, agri-entrepreneurs from Baheri and Bakar ganj, Bareilly, staff and their wards, enthusiastically participated in this programme. Dr. Sanjeev Kumar, Principal Scientist and organizing secretary welcomed the guests.

Various technologies and varieties (live display) developed at this institute were demonstrated through exhibition. Ms Puja, District Horticulture Officer, Bareilly, an agriculture graduate and MBA in Agri-business and Dr Abha Dutt, a veterinarian, were special guests on this occasion, who explained the scope of agriculture, agribusiness, fisheries, Veterinary sciences, pharma-industry and agro-industries, etc. All the participants took keen interest in exhibition. A quiz was also organized for students and general public and prizes were given to the winners. PG scholars at the institute mentioned about their selection to veterinary courses and opportunities. Two poultry entrepreneurs, namely Ms Yasmeen and Mr Afzal shared their experiences about poultry business and benefits. Dr A.B. Mandal, Director, described the importance of 3rd December as well as invited the young generation/ students to the profession of veterinary sciences, agriculture, dairy science and fisheries etc. and also to adapt agriculture and veterinary science based businesses. Dr S.K. Bhanja proposed the vote of thanks. Comparing was done by Sri. P.N. Yadav. Dr. S. Majumdar, Dr. Sandeep Saran, Dr. Simmi, Dr. Divya, Dr. Chandra Deo and other scientists and other staff contributed significantly in successful organization of the event.



Vigilance Awareness Week

- "Vigilance Awareness Week" was organized at ICAR-CARI, Izatnagar from 31st October, 2017. **Dr. Gautham Kolluri**, received First Prize in Debate Competition, **Manzoor Wani** received Second prize and **Sagar Popat** received Third prize.
- **Dr. Sanjeev Kumar** delivered a lecture on 30.10.2017 during "Vigilance Awareness Weak" organized at CARI, Izatnagar.

Official Language

- A meeting of Institute Official Language Committee was held on 05 Dec., 2017.
- One-day Hindi Workshop was organised on 29 Dec., 2017.

Farmers' Training

• A short-term training programme for farmers was organized at the institute during from 18-23 December, 2017.

Participation in Conference/ Seminar/ Workshop

International

• **Dr. Gopi, M**. attended and presented three research papers in 5th Intestinal Health Scientific Interest Group Poultry Gut Health Symposium at Bangkok, Bangkok, Thailand during 11-12th October, 2017.

National

- **Dr. Sanjeev Kumar**, Governing Council Member of National Academy of Veterinary Sciences (India) participated in the XVI Convocation cum Scientific convention at SVVU, Tirupati from 4-5 November 2017.
- Dr Divya attended a workshop on "Identification and Characterization of Phytochemicals using HRMS Instruments" from 27th to 29th November- 2017 at CSIR-Central Drug Research Institute, Lucknow (UP).
- Dr. A.B. Mandal, Dr. Sanjeev Kumar, Dr. Sandeep Saran, Dr. Raj Narayan, Dr. Simmi Tomar, Dr. C.K. Beura, Dr. Chandrahas, Dr J.J. Rokade and Dr. M. Gopi participated in XXXIV Annual Conference of Indian Poultry Science Association (IPSACON 2017) organized by ICAR-NIANP at NIMHANS Convention Centre, Bengaluru during 28-30 November 2017.

• **Dr J.J. Rokade** acted **Rapporteur** in one of the sessions in XXXIV Annual Conference of Indian Poultry Science Association (IPSACON 2017) organized by ICAR-NIANP during 28-30 November 2017 at NIMHANS Convention Centre, Bengaluru.

Human Resource Development

- ➤ Shri Satya Ram Meena (Senior Technical Officer), Shri Kamal Kumar Verma (Assistant) and Shri Prashant Panwar (LDC) Attended Training Programme on working with MS Excel on 21-23rd October-2017, ICAR-IVRI, Izatnagar
- ➤ Drs. Jaydip J. Rokade, Gautham Kolluri and Gopi, M. attended 3-Days training programme on "Working with MS EXCEL" from 26-28 October 2017 at ICAR-IVRI, Izatnagar.

Special Assignments

- **Dr. Sanjeev Kumar**, as a resource person, delivered a talk on 13.11.2017 on the topic entitled "Role of functional genomics in productivity enhancement of indigenous cattle resources" to the participants of ICAR winter school on "Omic technologies and modern breeding approaches for conservation and productivity enhancement of indigenous cattle" at CIRC, Meerut.
- **Dr S K Bhanja**, Principal Scientist, attended 17th meeting of Animal Husbandry, Feeds and Equipment Sectional Committee, FAD 5 on 14th November, 2017 at Bureau of Indian Standards, Manak Bhavan, New Delhi-110002.
- **Dr. Sanjeev Kumar**, appointed as External examiner to conduct comprehensive examination of Ph.D. (AG&B) scholars, conducted the exam on 20.11.2017 at NDRI, Karnal.
- **Dr. Sanjeev Kumar**, as a resource person, delivered a lecture on 21.11.2017 on the topic entitled "Genetic markers based assessment of reproductive health of cattle for efficient embryo transfer" in the MTC on "Embryo Transfer Training programme for improved calf production in dairy farming" at GADVASU, Ludhiana.
- **Dr. Sandeep Saran** was nominated as Chairman, Screening Committee for direct recruitment of T-3 in the Institute vide F. No. 6-8/Rectt./Tech./2015/Estt./2960-63 dated 24.11.2017.

Consultancy Services

Dr Sandeep Saran, Principal Scientist, offered consultancy services to the following clients:

- ❖ Smt. Shakun Yadav w/o Shri MPS Yadav, 84, Ashish Royal Park, Bareilly for preparation of DPR for **contractual broiler farming**.
- ❖ Shri Surender Pal, Vill. Shiv Nagaria, PO- Yakobganj Bahedi, Bareilly for preparation of DPR for **broiler farming**.
- Sri Yogendra Pal Singh Vill. & PO- Bakipur, Ahmedpur, Bareilly for preparation of DPR for **broiler farming**.

Distinguished visitors/ guests

Dr. S.C. Gupta, Joint Director (Disease Control) & Joint Director (Administration), UP AH, Lucknow was the chief guest on the establishment day of the Institute, 2.11.2017. Dr. Gupta appreciated the technologies developed and various activities of the institute. Progressive poultry farmers were awarded on this occasion.

Ms Pooja, District Horticulture Officer, Bareilly was the special guest on the occasion of "Agriculture Education Day) celebrated at the institute on 3.12.2017. She graced the occasion and delivered a motivational and inspiring speech for the students and faculty of various schools/ colleges. She also mentioned several avenues in the area of agriculture and allied sciences.

Dr. Abha Dutt, Deputy Chief Veterinary Officer, Bareilly was also the special guest on the occasion of "Agriculture Education Day) celebrated at the institute on 3.12.2017. Dr Abha delivered an inspiring speech for the students and faculty of various schools/ colleges and motivated them to make veterinary and animal sciences as their careers. She mentioned several avenues in the area of veterinary, dairy, fishery, agriculture and allied sciences.







News Highlights

During the period (October-December, 2017), various activities of and technologies developed at the Institute were well presented and appreciated in local as well as national dailies.



Hindustan, 3.11.2017



Amar Ujala, 4.12.2017





Amar Ujala, 5.12.2017













Hindustan, 13.12.2017



Hindustan Times, 24.12.2017



Hindustan, 24.12.2017



Dainik Jagran, 26.12.2017

Staff Personalia

Promotions

- Shri Rakesh Kumar Bharti, Technical Officer has been promoted to the post of Sr. Technical Officer w.e.f. 01-01-2014.
- Shri Harish Kumar Sagar, Technical Officer has been promoted to the post of Sr. Technical Officer w.e.f. 01-01-2015.
- Shri Ajay Dass, Sr. Technician has been promoted to the post of Technical Assistant w.e.f. 01-05-2017.
- Shri A.K. Jha, Sr. Technical Assistant has been promoted to the post of Technical Officer w.e.f. 10-01-2017.
- Shri Pradeep Kumar, Technician has been promoted to the post of Sr. Technician w.e.f. 09-01-2017.
- Shri Rakesh Jaswara, Technical Assistant has been promoted to the post of Sr. Technical Assistant w.e.f. 20-01-2017.

Retirements

Dr. Jagmohan Kataria, Director, ICAR-CARI retired from his service on 31-10-2017.

- Shri Shailendra Bhatnagar, Chief Technical Officer retired from his service on 31-12-2017.
- Smt. Bimla Devi, Asstt. retired from her service on 31-12-2017 (VRS).
- Shri Kali Charan, SSS retired from his service on 31-12-2017.
- Shri Anokhey Lal, SSS retired from his service on 31-12-2017(VRS).

Transfers

- Shri Panchoo Lal, Administrative Officer joined ICAR-CARI, Izatnagar on 20-12-2017 consequent upon his transfer from IVRI, Izatnagar.
- Shri Hartesh Kaushik, Administrative Officer transferred to ICAR-IVRI, Izatnagar on 31-12-2017.

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