



सीएआरआई समाचार

THE CARI NEWS



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हर कदम, हर डगर
किसानों का हमसफर
भारतीय कृषि अनुसंधान परिषद

Agr#search with a human touch

FROM THE DIRECTOR'S DESK

The ICAR-Central Avian Research Institute, Izatnagar has been playing a leading role in developing technologies for application at farmers' door and revolutionizing the poultry sector to meet the challenges of sustainable nutritional and financial security of Indian farmers. The present scenario of poultry production is changing fast because of several factors viz. biotic and abiotic stressors, environmental and welfare concerns, changing marketing patterns, policy issues etc. Access to improved knowledge and its transformation into technology development may help in resolving these issues for helping poultry sector into economically viable and environmentally sustainable venture. The increasing costs of inputs, changing demands of consumers and booms and busts in market prices of poultry and poultry products always pose threats to producers. It is therefore the need of hour that poultry production may need to change its dimensions and switch over to integration with other technologies like vermi composting, maggots, plants, stray cattle or small ruminants. Such type of integration may be helpful in lowering down the feed cost besides resolving the burning issue of stray cattle as well as optimizing the usage of land and resources for developing self-sustaining production system yielding higher dividends. Another advantage would be that the products coming out from such models would be almost organic with least involvement of chemicals/ antibiotics/ pesticides. With the modest beginning such model has been created at CARI, Izatnagar as a pilot project and demonstration unit for the benefit of farmers and entrepreneurs.



The institute is undertaking the research in advance areas to transform the lab research to be more sensitive and effective according to the needs of the farming community. For this, we engage ourselves in popularizing poultry farming through our extension wings by organizing training programs for farmers, industry and representatives of NGOs and imparting them the theoretical and practical knowledge of poultry production, management, health care, value-addition etc.. The specialized training programs, summer / winter schools are also being organized by the institute.

During this quarter, the institute celebrated its 41st Foundation Day in a grand manner. Specialized and regular training programs were organized. An off-campus collaborative training program for field functionaries with MANAGE, Hyderabad on, "Capacity Building of Field Functionaries on Diversified Poultry Production and Processing Technology" was organized. The kisan gosthi was organized for addressing the problems of poultry farmers. Regular activities were performed under Mera Gaon Mera Gaurav and Swachhta Abhiyan. The other programs and activities like Kisan Diwas, Gandhi Jayanti, visits of VIPs and public representative were undertaken.

Dear Readers, I would be happy to receive your valuable inputs for further improvement in our endeavors. I hope that the Newsletter will be useful and of value to you. Wishing you a pleasant read and success in all your ventures.

(V. K. Saxena)
Director(Acting)

SECTORAL NEWS

IPSACON- 2019 Organized at Durg

Thirty Sixth Annual Conference and National Symposium of Indian Poultry Science Association (IPSA) on “**Conceptual understanding and future strategies for welfare friendly poultry production in India**” was organized by College of Veterinary Science and Animal Husbandry, Chhattisgarh Kamdhenu Vishwavidyalaya, Anjora, Durg (Chhattisgarh) in collaboration with Indian Poultry Science Association (IPSA) during December 11-13, 2019. This conference has provided a platform for the exchange of new ideas and novel information on the recent development in poultry sector. The Conference aimed at giving emphasis to all recent, novel and innovative research on nutrition, breeding, diseases, post-harvest technology and sustainable poultry production in view of poultry welfare in the country. It was attended by 348 researchers, policy makers, students and poultry entrepreneurs from **24** different states of the country. Total **43 lead papers** were presented in the conference. The scientists of ICAR-CARI, Izatnagar participated actively in the conference by presenting lead papers and conducting scientific session as Chairman, Co-chairman & rapporteur. The book entitled **SCIENTIFIC POULTRY PRACTICES**; by Dr Mukund Kadam, Dr. Rokade Jaydip and Dr. Gautham Kolluri (ISBN no. 978-93-83397-47-1) was also released on this occasion. Dr M. Gopi, won prestigious “Avitech Young Scientist Award” and Dr Jaydip Rokade, received Best Oral Presentation Award during the event.



INSTITUTE'S NEWS

Backyard Poultry Integrated Model- an initiative of ICAR- CARI

A model project –cum-demonstration unit on backyard production integrated with vermi composting, maggot production, Moringa plantation, forage production (Barseem, Lobiya etc), vegetables(Cabbage, Spinach), Mustard etc. on one acre land was created. Total six poultry houses each with 360 sq feet area alongwith provision of perching were constructed using different materials like bamboo and thatches, iron pipe frame and fiber sheet to house about 2000 birds of different genetic groups *viz.* Kadaknath, Aseel and CARI Shyama birds. The entire area was fenced with 13 feet high fence. Five trenches (25x3x1 feet each) were constructed for earthworm production. For product of maggots of black soldier fly, five discarded overhead tanks (each with 260 L capacity) were used. The birds are allowed to graze in open field during daytime and provided with 30- 40% supplemental feed in the evening while kept inside night shelters during night. The age at first egg, egg production and body weight were better in this system as compared to Desi fowl unit of the institute. Birds are maintaining good health with shining plumage and their welfare issues were also met as they graze in open field enjoying their five freedoms of welfare.



Research Highlights

Immunity, Serum Biochemical, Intestinal Morphometry and Nutrient Transporter Genes of Broiler Chickens Fed Diet Incorporated with Synbiotic

An experiment was conducted to determine the effect of synbiotic on immune response, expression of nutrient transporter genes and gut health status of broiler chickens. A total 240 day-old chicks were randomly assigned to 6 dietary treatments (5 replicates with 8 birds each) for 6 weeks. A basal diet (T_1) and the rest five test diets prepared by adding bacitracin methylene disalicylate (BMD)@ 20mg/kg diet (T_2), T_1 +*Lactobacillus acidophilus* (LBA) @ 10^6 cfu + Mannan-oligosaccharides (MOS) @ 0.1% (T_3), T_1 + LBA @ 10^7 cfu + MOS@ 0.1% (T_4), T_1 + LBA @ 10^6 cfu + MOS @ 0.2% (T_5), T_1 + LBA @ 10^7 cfu /gm feed + MOS @ 0.2% (T_6). Haemagglutination (HA) titre and foot pad index were significantly higher in T_5 and T_6 group (Fig-1)

Significant increase ($P<0.05$) was observed in serum proteins, while serum enzymes viz., aspartate transaminase (AST) and alanine transaminase (ALT), kidney function test viz., creatinine, uric acid and serum lipid profile viz., total cholesterol, high-density lipoprotein (HDL), low density lipoprotein (LDL) concentration were decreased in T_5 and T_6 group. Villus height and crypt depth were significantly increased ($P<0.05$) in T_5 and T_6 group. Glucose transporters-5 (GLUT5), sodium glucose transporter-1 (SGLT1) and peptide transporter-1 (PePT1) gene expressions in ileum were found significantly ($P<0.05$) upregulated in T_5 and T_6 groups at 14 d post hatch. The results of the present study led to conclusion that inclusion of synbiotic (MOS @ 0.2% and LBA @ 10^6 cfu/g) in broiler diet improved the immune response, serum biochemical parameters, intestinal morphometry and nutrient transporter genes of broiler chickens.

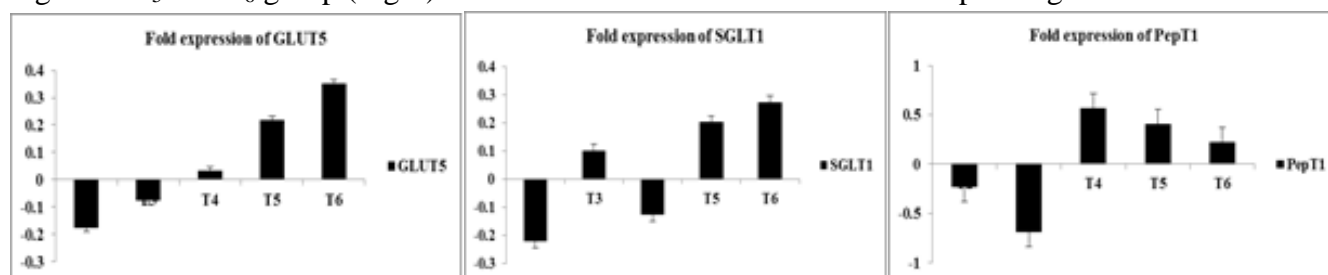


Fig:1- Relative fold expression of different nutrient transporter genes in the intestine (ileum) of broiler fed synbiotic

Avishek, Biswas, Kapil Dev, Nasir Akabr Mir and Asit Baran Mandal

Other Activities

Institute Celebrated its 41st Foundation Day

The Institute celebrated its 41st Foundation Day on 2nd Nov, 2019 under the leadership of Dr.V.K.Saxena, Director (Acting) of the institute. On this occasion, Dr. O. P. Choudhary, Joint Secretary (NLM), Ministry of AH, Dairy and Fisheries, Govt. of India, New Delhi was the Chief Guest. While, Dr.Rajveer Singh, Former Director, CARI, Izatnagar and Dr. Sujeet Kumar Dutta, Deputy Commissioner (Poultry), Ministry of AH, Dairy

and Fisheries, Govt. of India, New Delhi were Special Guests at the occasion. The Chief guest emphasized on the need of transfer of knowledge generated out of research to the its users in farmer friendly simple language. Dr. Rajveer Singh, Former Director, CARI, Izatnagar expressed his concern over rising prices of poultry feed and advised scientific community to make efforts to reduce poultry feed cost to sustain poultry farming by making it more profitable. Dr.Sujeet Kumar Dutta, Deputy Commissioner (Poultry) urged to give

more importance to backyard poultry as it can be done by small and marginal farmers for income generation.



Exhibition on Diversified Poultry Production

An exhibition on diversified poultry production was organized on 2nd November, 2019 on the occasion of 41st foundation day, where in, the precious germplasm of chicken, quail, turkey and guinea fowl was displayed. All the Divisions and Sections showcased valuable technologies for the benefit of farming community.

Indigenous incubator prepared from discarded fridge was also displayed for the first time for hatching eggs in small quantity by poultry farmers himself. A live



demonstration of DAC technology for biogas generation from poultry excreta was shown to the dignitaries, poultry entrepreneurs and public. Total fourteen progressive poultry farmers were also awarded for running their poultry farms successfully with adoption of CARI technologies.

CENTRAL/DIVISIONAL NEWS

Kisan Goshthi organized

A kisan goshtthi was organized on 2nd Nov. 2019 by Technology Transfer Section on the occasion of 41st Foundation Day of the institute. During this kisan goshtthi, lectures on commercial broiler farming, low cost balanced feed, vaccination and marketing of poultry etc, were delivered by the scientists of institute. The major problems

enumerated by farmers were low market price of live chicken, high cost of feed and availability of good quality chicks. These queries were replied suitably in detail by the experienced scientists / experts. The farmers from the villages of Bareilly, Pilibhit, Shahajahanpur, Bulandshahar, Rampur, Budaun, Lucknow districts of UP and students of MJP Rohelkhand University, Bareilly (UP) participated in the event.



Training Programmes Organized

- Regular training programme on poultry production management for 72 farmers and unemployed youths from various states w.e.f. 25 – 30th November, 2019.
- Specialized training programme on Poultry Feeding and Quality Control for 17 poultry farmers from 11-23rd November, 2019
- MANAGE sponsored collaborative training programme – off campus capacity building of field functionaries on diversified poultry production and processing technologies. conducted at the Institute from 21 –25th October, 2019



Mera Gaon Mera Gaurav

The team members – Dr. M. P. Sagar and Sh. P.N.Bajpai visited the village Dandia of Bithri chainpur development block of Bareilly district on 26-09-2019 to create awareness about harmful effects of Single Use Plastic. The scientists interacted with farmers and primary school students and provided them information about harmful effect of single use of plastic in day to day life. They were motivated to say no to



plastic like polythene bags, cups etc at various occasions.

A technology for green fodder production- Bajra Napier Hybrid (B-N Hybrid) cultivation was also introduced with the help of KVK, IVRI, Izatnagar. A progressive farmer of the village Dandia was provided

with Bajra Napier Hybrid (B-N Hybrid) cuttings for growing as fodder crop. This progressive farmer propagated Bajra Napier Hybrid (B-N Hybrid) among other farmers of the village.

Promotion of Backyard Poultry Farming

In order to promote backyard poultry farming among farmers, 16 farmers of villages- Navdia harkisan, Dandia and Tigra of Bareilly district were provided grown up chicks (10 chicks each) free of cost, on the occasion of Institute Foundation Day and Kisan Divas during swachhta pakhwara in the year 2019



Swachh Bharat Abhiyan at Institute

On the direction of Hon'ble Prime Minister of India Hon'ble Shri Narendra Modi and under the guidance of ICAR, Ministry of agriculture and farmers welfare, and Director, CARI, Izatnagar, Swachh Bharat Abhiyan activities were performed under the theme Swachhta Hi Seva – Plastic Waste Management from 11th Sept.-02, Oct., 2019 at the Institute. Different activities on plastic waste management were organized as per the plan suggested by ICAR, New Delhi. During this swachhta pakhwara, activities like awareness generation about single use plastic through group



discussion; debate; lectures, collection of plastic, cleaning and sweeping of different places and plantation of ornamental trees at New Campus were performed.

Gandhi Jayanti was also celebrated on 2nd Oct. 2019. Various activities – debate and quiz were organized and winners were awarded.

Another Swachhta Pakhwara was organized from 16th – 31st Dec., 2019. During this pakhwara different activities were organized at the Institute as per the plan suggested by ICAR, New Delhi. Activities like Swachhta Oath taking, cleaning and sweeping of different places and plantation of ornamental trees at New Campus were performed. A series of lecture on single use plastic, waste management and medical waste management were also delivered by resource persons Dr. Chandahas, Principal Scientist and Dr. Anupam Goel, Sr. Medical Officer and Dr. Mahesh Chandra, Joint Director, IVRI, Izatnagar on 20.12.2019, 21.12.2019 and 27.12.2019, respectively.

The valedictory function of swachhta pakhwara was held on 30.12.2019.

Hon'ble MLA, Mirganj (Bareilly) Dr. D C Verma was the chief guest at this occasion.



He addressed the gathering and apprised about the Swachhata Abhiyan undertaken as one of the most important program initiated by Govt of India. He also took part in Swachhata activities of the institute. He planted Sandal and Rudraksh tree saplings at New CARI Campus. A small exhibition was also organized for showcasing institute activities and poultry waste utilization prototype developed at CARI, Izatnagar.

Awareness Camp on Swachh Bharat Abhiyan at Village Level

During Swachh Bharat Abhiyan from 11th Sept- 2nd Oct, 2019, a swachhta awareness programme was organized on 30.09.2019 in the village Navdia harkishan of Bareilly (UP). The scientist and technical staff acquainted villagers about the problems created by use of single plastic and they were motivated for discontinue of use of single use plastic in routine life. The cleaning and sweeping activities were also performed in the village.



Kisan Divas

Kisan Diwas was celebrated on 23.12.2019 during swachhta pakhwara to commemorate the birth anniversary of Ex-Prime Minister Late Sh. Choudhary Charan Singh. On this occasion, Dr. V. K. Saxena Director (Acting) remembered Sh. Choudhary Charan Singh as great leader of farming community and spoken about his contribution for welfare of farmers. He also emphasized about role of poultry in doubling the farmers income by integrating it with agriculture and other allied activities. In order to motivate participants, scientists of the institutes delivered lectures on various aspects of poultry farming followed by visit to institute's museum. Grown up chicks of 8-9 weeks age of CARI-Nirbhik were also distributed free of cost to 10 farmers (10 chicks each) of village Navdia- harkisan to encourage them for backyard poultry farming.



Awareness Programme on Water Conservation

A awareness programme on water conservation was organized on 24.12.2019 at village Lalpur, Bareilly district of UP as an activity under swachhta pakhwara (16-31Dec.,2019). A team of scientists- Dr. M. P. Sagar and Dr. Avishek Biswas alongwith Sh. P. N. Bajpai, Technical Officer hold a meeting with villagers and delivered lectures on importance of water, its excessive use in agricultural crops and ways for its conservation. The villagers were encouraged to harvest rain water by construction of village ponds with the help of govt. schemes for this purpose and discouraged them to indiscriminate use of ground water in routine works.

Constitution Day

As per directions of the council, Constitution Day was celebrated on 26-11-2019 at the institute. The programme



was initiated with the introduction and history of constitution in presence of scientists, administrative, technical and supporting staff of the institute and trainees from various states. Talks on constitution, fundamental rights and fundamental duties were



delivered by the scientists and administrative staff of the institute with a view to create awareness about constitution. Preamble of the constitution was read by all the staff and participants in leadership of the Director (Acting) - Dr. V. K. Saxena, The programme ended with vote of thank and recitation of National Anthem.

Awareness Programme on Fundamental Rights and Duties of Citizens at Village Level

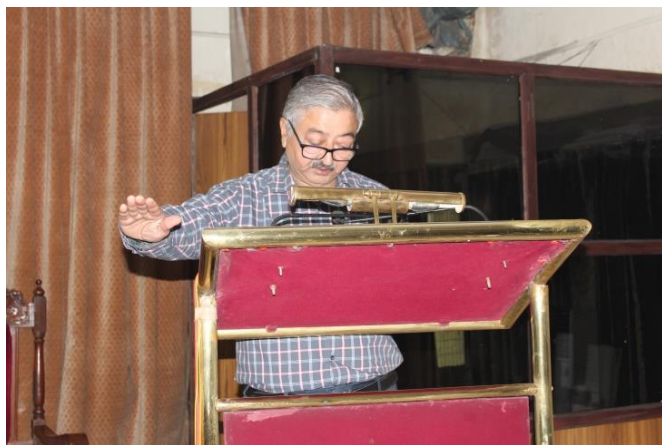
As per programme schedule, awareness programme on fundamental rights and duties given in constitution was organized 31-12-2019 in the village Navdia harkisan of Bareilly district (UP). The programme was initiated with the introduction and history of constitution in the presence of village Pradhan and villagers. Villagers were made acquainted about the constitution, fundamental



rights and fundamental duties given in the constitution by delivering lectures by Dr. M. P. Sagar and Dr. C. K. Beura, Principal Scientists of the institute. Preamble of the constitution was also read by villagers. During the programme, villagers were also advised to perform their duties contained in the constitution as citizen of India for the development of the village, district, State and Nation.

Vigilance Awareness Week

Vigilance awareness week was organized from 28 Oct, - 2 Nov, 2019 with the main focus (theme) on



“**Integrity – A way of Life**” build a new India. The observance of week was commenced with a pledge taken by all the staff of the Institute on 28 Oct, 2019. Subsequently, a seminar was also organized on “**Integrity – A way of Life**”. In addition, the Director of the institute Dr. A B Mandal indicated the vigilance angle for scientific data collection. He emphasized that scientist should be vigilant about data accuracy and authenticity. Sri Irfan Ali, Administrative Officer CARI emphasized the role of MIS-FMS in order to strengthen the vigilance in the Institute. Other scientific, technical, and administrative staff of the Institute also expressed their views on this aspect. Various other activities organized during this week were distribution of pamphlets and handout on preventive vigilance activities, display of the banners and posters at the public places like banks and post office, conducting the debates and quiz etc. for the children’s of the Institute employees. A debate on **Integrity–A way of Life** was carried out at Kendriya Vidhalya, IVRI, Izatnagar for school children on 30th October, 2019, where in 18 students participated in it and winners were given prizes. On last day, a Sulekh competition was organized at Prathmic Avam Purva Madhaymic Vidhayala, IVRI, Izatnagar, on the subject “Corruption free India” and prizes were given to winner students.



Awards

- Dr Gopi, M. received **Young Scientist award** at VIII European Symposium on the Quality of Eggs and Egg Products and XXIV European Symposium on the Quality of Poultry Meat held at Çeşme - İzmir, Turkey from June 23- 26, 2019.
- Dr Gopi, M. received **Avitech Young Scientist** at the 36th Annual Conference and National Seminar of Indian Poultry Science Association held at College of Veterinary Sciences, Durg, Chhattisgarh from 11-13th December, 2019.
- Dr Jaydip Rokade, selected for **“Best Oral Presentation Award”** for paper presented during 36th Annual Conference of Indian Poultry Science Association held at Durg, Chhattisgarh from 11-13 December, 2019.
- Dr M.P. Sagar received ISEE Fellow Award at National Seminar of Indian Society of Extension Education, New Delhi held at Swami Keshwanand



Rajasthan Agricultural University, Bikaner (Rajasthan) from 14-16th November, 2019.

Staff Personalia

Postings

- Dr. V. K. Saxena, Principal Scientist (AG&B) taken over the charge of Director (Acting) ICAR-CARI, Izatnagar on 31.10.2019.

Promotions

- Shri P. N. Bajpai, T-5 (Tech. Officer) promoted to the post of T-6 (Sr. Tech. officer) w.e.f.07.10.2019
- Shri Prem Singh Rawat, Skilled Supporting Staff promoted to the post of Lower Division Clerk w.e.f. 23.10.2019
- Shri Ulphan Khan, Skilled Supporting Staff promoted to the post of Lower Division Clerk w.e.f. 30.10.2019
- Shri Rajendra Kumar, Skilled Supporting Staff promoted to the post of Lower Division Clerk w.e.f. 30.10.2019
- Smt Urmila devi, Skilled Supporting Staff promoted to the post of Lower Division Clerk w.e.f. 19.11.2019
- Shri Umesh Kumar Tripathi, Skilled Supporting Staff promoted to the post of Lower Division Clerk w.e.f. 26.11.2019
- Smt Rekha Rani, Lower Division Clerk prompted to the post of Assistant w.e.f. 06.12.2019
- Shri Anil Kumar Sharma, Lower Division Clerk promoted to the post of Assistant w.e.f. 06.12.2019

Transfer to other Institutes

- Dr. Ashim Kumar Biswas, Senior Scientist transferred to ICAR-IVRI, Izatnagar on 25.11.2019.

Retirements

- Dr. A.B. Mandal, Principal Scientist and Director (Acting) ICAR-CARI, Izatnagar retired on 31.10.2019.
- Shri Dhani Ram, Skilled Supporting Staff retired on 31.10.2019.

Demises

- Shri K.K.Verma, Assistant, passed away on 16.12.2019.

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