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DIRECTOR'S COLUMN



It is heartening to see the Directorate growing steadily and serving the people of this nation by providing nutritional and livelihood security through its improved germplasm and technologies. This Newsletter offers a glimpse of the major activities and achievements of this Directorate. The Directorate ever since its

establishment is constantly thriving for the improvement of the rural masses which is evident by the widespread acceptability of its technologies. The Directorate is working on cutting edge research like Internet of Things (IoT) in a collaborative mode with CDAC (MeitY) to address several bottlenecks of poultry industry. Research on understanding the development of female gonads is providing detailed insights into the molecular mechanisms and genes involved in the gonadal differentiation. The Kuzi duck and its crosses with Khaki Campbell and the

ICAR DPR celebrated 35th Foundation Day

The Directorate celebrated its 35th Foundation Day on 1st March 2022. Prof. V. Ravinder Reddy, Vice Chancellor, PV Narasimha Rao, Telangana Veterinary University (PVNRTVU), Hyderabad graced the occasion as the Chief Guest and Dr. R. N. Chatterjee, Director, ICAR-DPR presided over the function. The contribution of ICAR-DPR in the growth and development of poultry production in the country particularly the backyard poultry production through its varieties development, dissemination of improved chicken varieties, germplasm supply, technology development and extension activities throughout the country was highly appreciated by the Chief guest. A booklet entitled

Kuttanad ducks were evaluated for their suitability at the Regional Station, Bhubaneswar. The Directorate is also involved in organizing various training programs for the stakeholders. The activities organized under the DAPSC and DAPST for the upliftment of the needy people is noteworthy. The Directorate has actively participated in various national building programmes for the benefit of the poultry stakeholders. The efforts of all the staff of the Directorate at the Headquarters and Regional Station is highly appreciated.

Dr. R.N. Chatterjee Director

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"Cryo-preservation of PGCs: An efficient method for *ex situ* conservation of chicken breeds" was released. The Director stressed the impact created by the Directorate in enhancing sustainable livelihoods, women empowerment and combating protein malnutrition. Chairman of the organizing committee, Dr. T.K. Bhattacharya, Principal Scientist welcomed the dignitaries. He briefed the house about the research achievements of the institute in various disciplines as well as about the development of region specific chicken varieties, area specific mineral mixtures, bio-fortified eggs, semen cryopreservation, etc. He also highlighted the role of the institute in different flagship programs such as AICRP and PSP.



Chief Guest & Director releasing the Booklet

RESEARCH HIGHLIGHTS

Directorate initiates work on "IoT Solution for Smart Poultry Farm Practice"

Under the "National Programme on Electronics and ICT applications in Agriculture and Environment (AgriEnIcs)" funded by Ministry of Electronics and IT (Meit-Y), Government of India, a collaborative project between Centre for Development of Advanced computing (C-DAC), Kolkata and the Directorate on "IoT Solution for Smart Poultry Farm Practice" was initiated. Environmental conditions, in particular temperature, relative humidity, and the length of exposure have a major impact on chicken welfare, mortality, and performance. The project is planned to develop an IoT based wireless sensor network to monitor the poultry environmental parameters, like temperature, relative humidity, ammonia concentration, air velocity and if possible to alter/control the environmental parameters using IoT devices in broiler and layer houses. The study aims to develop IoT based framework and decision-support system for alert / alarm generation. Behavioural changes of birds like vocalization frequency, intensity and pattern provide valuable clues regarding performance, health and other stress conditions. The project plans to monitor and record vocalization of birds and to create baseline data and explore the possibility of using the data to develop early warning system for identification of sick and stressed birds. An experimental facility for vocalization analysis of chicken is established at the Directorate. A pilot study was conducted to collect and analyze different sounds of chicken to create baseline data. Five different chicken vocalization sounds were separated and identified.



Director at experimental facility

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Recording of vocalization of chicken



A. Kannan, S.V. RamaRao, T.R. Kannaki and S.K. Bhanja

Comparative production performance of Kuzi duck of Odisha and its two crosses with Khaki Campbell

Comparative production performances of Kuzi (D) duck of Odisha along with its two crossbreds with Khaki Campbell (K) viz: Kuzi X Khaki Campbell (DK) and Khaki Campbell X Kuzi (KD) were evaluated under deep litter system with intensive system of rearing. The work was carried under the DBT project entitled "Genetic up-breeding of duck production to strengthen livelihood security in NER of India by converging conventional and molecular techniques'. Ducklings of the three genetic groups hatched in the same day were reared under standard duck brooding and growing management. Age of the flock at 50 % duck day egg production as 138.00±3.79, 122.67±0.67 and 125.00±0.58 days in Kuzi, DK and KD, respectively and the data showed significant (p<0.05) difference among the genetic groups. Corresponding age of the flock at 80 % duck day egg production was 191.67±0.33, 136.67±2.40 and 155.33±1.20 days. Duck day production % upto 40 week of age in Kuzi, KD and DK was 61.17±1.64, 69.11±2.50 and 69.14±0.21, respectively. Corresponding production % up to 60, 72 and 80 weeks of age in Kuzi, DK and KD was 61.15±2.43, 73.70±2.73, 67.78±0.13; 61.03±75.78±2.41, 69.47±0.11 and 60.35±1.84, 77.07±2.13, 70.68±0.10 and the % egg production differed significantly (p<0.05) among the genetic groups irrespective of age of measurements. The average number of eggs produced per bird up to 40 weeks of age in Kuzi, DK and KD were 110.10±2.96, 123.70±4.47 and 123.76±0.38 eggs, respectively. The corresponding egg number up to 60, 72 and 80 weeks of age in Kuzi, DK and KD was 195.68±7.78, 257.97±9.55, 216.23±0.40; 247.23±8.50, 305.39±9.70, 279.94±0.45 and 277.60±8.47, 353.74±9.77, 324.75±0.19 eggs, respectively. Significant (p<0.05) differences were observed among the genetic groups for the number of eggs produced per bird irrespective of age of measurement. The egg weight at 40, 60 and 72 weeks of age in Kuzi, DK and KD was 71.17±0.46, 67.13±0.13, 68.61±0.45; 74.63±0.45, 72.45±0.22, 72.37±0.41 and 73.56±0.28, 72.00±0.20, 72.66±0.30g, respectively. The egg weight differed significantly (p<0.05) among the genetic groups irrespective of the age of measurement. It was observed that the crossbreds performed better than the Kuzi at different ages of measurement.



M.K. Padhi, S.C. Giri and S.K. Sahoo

Introduction and Performance Evaluation of Kuttanad Ducks in Odisha

Kuttanad -Chemballi is an indigenous duck variety from Kuttanad region of Kerala. This dual type duck can produce up to 200 eggs per annum and weigh around 1.5 to 2.0 Kg at 20 weeks of age in its native tract. One thousand fertile eggs of Kuttanad Chemballi ducks were procured from Government Duck farm, Niranam, Pathanamthitta District, Kerala under the institute funded project. A total of 982 eggs were set for hatching of which 874 eggs were fertile. 637 ducklings hatched. Hatching percentage based on total eggs set and fertile eggs set was 64.87 and 72.88, respectively. The ducklings were reared under intensive system of rearing. The mean body weight of day old ducklings was 37.97 \pm 0.13 g. The mean body weight of ducklings at 2nd, 4th, 6th and 8th

week was 170.04 ± 0.65 , 508.55 ± 6.68 , 939.4 ± 13.79 and 1236.99 ± 4.43 , respectively. Effect of sex was highly significant (P<0.01) on 8th week body weight. The 8th week mean body weight of male ducklings was 1281.34 ± 6.20 g while that of female ducklings was 1193.06 ± 5.28 g. Mortality was 1.26% in 0-4 weeks and nil during 4-8 week. As per the preliminary evaluation of this new germplasm, it may be concluded that, Kuttanad-Chemballi ducks have good adaptability to climatic conditions of Odisha showing good growth rate with very low mortality.



Rajalaxmi Behera, M.K Padhi, D. Kumar, P.K Naik and C.K Beura

Understanding the disease tolerance/resistance in Indian native chicken breeds to Newcastle disease and novel control strategies

Differential virus load and immune gene expression in chicken embryos infected with Mesogenic NDV

Embryos of native chicken breeds viz., Aseel and Kadaknath were inoculated with mesogenic R2b strain on 18^{th} day of incubation along with White Leghorn embryos. On 21^{st} day before hatching the chicks were sacrificed and tissues were harvested and virus load were quantified by real time PCR. Virus load was higher in lung tissue of Aseel and Kadaknath than White Leghorn; whereas the virus load was higher in spleen of WL compared to Aseel and Kadaknath. Immune gene such as TLR3, TLR7, LITAF, IFN- α , IFN- γ , MHC-I, MHC-II, iNOS, IL-10, IL-12, IL-1 β and CCL5 were quantified by real time PCR. The expression of transcripts of these genes also showed differential expression pattern in comparison to uninfected control embryos of respective breeds.

Differential response, morbidity, mortality and immune response to experimental Newcastle virus infection in colored broiler and Vanaraja chicken

The coloured broiler chicken (PB1) and Vanaraja chicken of 10 weeks old were experimentally infected with field Newcastle disease virus isolate by intranasal and oral route. The infected birds were kept in isolator, observed for morbidity, mortality percentage, mean death time, severity of lesion in dead birds etc., for 10 days post challenge. The oral and cloacal swab were collected from both infected and control birds of both breeds on 2nd, 5th and 10th day post challenge. The morbidity and mortality rate were comparatively higher in PB1 than vanaraja birds. Mean death time was shorter in PB1 birds. The virus load was nil by 10th post challenge in surviving PB1 birds, however the virus was still excreted by vanaraja birds until 10day post challenge. Surviving birds of both birds showed higher seroconversion for

ND titer measured by HI and iELISA indicating induction of immune response.



Caecal tonsils showing petechial haemorrhages in PB1 birds (top) and no lesions in vanaraja birds (bottom)



Chicken embryos showing haemorrhages on head and body upon inoculation with tissues from experimentally infected birds. (Left: control embryos; Right: Inoculated embryos)

> T R Kannaki, M R Reddy, Santosh Haunshi and S P Yadav

Genomewide profiling of long intergenic non-coding RNAs, miRNAs and mRNAs during the asymmetric ovarian development of Chicken.

In chickens, sex-specific differentiation of gonads is evident from embryonic day 6–6.5 (E6–6.5/ stage 29–30) and there is an asymmetry in the development between left and right gonads after E8 (stage 34) (Smith, 2007), leading to complete regression of the right ovary at adult stage. In the present study, the datasets (SRR4029458, SRR4029457, SRR4029464, SRR4029463, SRR4029460, SRR4029459) from NCBI (https://www.ncbi.nlm. nih.gov/) were used to study the differentially expressed genes in Embryonic 6th day (E6) vs Embryonic 12th day (E12) and Post hatch Day 1 (D1) to know about the regression of right ovary in the embryonic and post-hatch period.

The differentially expressed significant up and down-regulated genes during E6 to E12 were found to be 373 and 520 respectively. The significantly up-regulated genes (SERPIND1, FGG, APOH, SERPINA10, AHSG, etc) during E12 was found to be involved in the pathways related to fibrinolysis, endopeptidase inhibitory

activity, peptidase inhibitory activity, etc when compared to E6. Similarly, the differentially expressed significant up and down-regulated genes during D1 to E12 were found to be 708 and 1136 respectively. The significantly down-regulated genes (TNNT2, TNNI1, TRAF5, SPATA2, SLC12A6, SLC26A6, etc) during D1 were found to be involved in the pathway regulating the programmed cell death when compared to E12, suggesting higher programmed cell death during E12 and complete degeneration of right ovary during the post-hatch period.

S. Jayakumar

EVENTS ORGANIZED

a. Training program on CLA on Poultry (Module-II)

A training program on "Certified Livestock Advisor on Poultry, Module – II" sponsored by MANAGE, Hyderabad was organized during 28 Dec 2021 to 11 Jan 2022. A total of 11 Animal Husbandry officers from 7 states/UTs attended the programme. The trainees were exposed to various aspects of poultry production such as breeding, nutrition, management and health care. The participants also visited the adopted village to learn more about the backyard poultry farming as well other ICAR institutes for value addition of products.



b. National Girl Child Day

The National Girl Child Day 2022, initiative of the Ministry of Women and Child Development, Government of India was celebrated by on 24th January 2022. This program was conducted to spread awareness about inequities that girls face in our society and the need for their development for a brighter tomorrow. Fifteen girls studying in different schools, aged between 8-13 years participated in this function. They gave their opinion about the challenges faced by the girls in the 22nd century.



c. World Pulses Day

The world Pulses Day is observed on 10th February every year. This year, the Directorate observed "World Pulses Day-2022" on 10th February in the adopted village of Bavoji Tanda, Mahboobnagar district, Telangana. About 40 farm women actively participated in the programme. Farmers got awareness about importance of pulses in the diet and how it is cultivated to get better yield.



d. Training program at YFA-KVK, Mahaboobnagar

Youth For Action-KrishiVigyan Kendra, Madanapuram, Kothakota, Mahabubnagar Dist., Telangana in collaboration with The Directorate organized a training programme on "Management of Backyard Poultry" for scheduled caste beneficiaries on 14 February 2022. Scientists from the Directorate participated and delivered lectures in the training programme. The various queries raised by the participants about scientific poultry rearing were addressed during the programme. Five week old Gramapriya birds were distributed to 22 women SC farmers of Wanaparthy Dist. with the support from ICAR-DPR under the Development Action Plan for Scheduled Caste.



e. MGMG program

Birds of improved chicken variety, Vanaraja were distributed at subsidized rates to the tribal farmers under the MGMG program on 21st February 2022 in the adopted villages of Nagulagudda Thanda and Kanikarala Tanda, Keshampetmandal, RangaReddy District. The schedule tribe farmers were explained about the importance of backyard poultry. The farmers were also informed about the feeding management of the backyard chicken for better returns.



f. National Science Day

The Directorate celebrated "National Science Day" on 28th February 2022 to commemorate the great contribution of Nobel Laureate, Sir C.V. Raman and creating awareness on Science in the society. The Chief Guest, Padma Bhusan Dr Anil Prakash Joshi, noted Environmentalist, Scientist & Founder of Himalayan Environmental Studies and Conservation Organization (HESCO) delivered Science Day lecture on "Integrated approach in science and technology for a sustainable future". An exhibition was organized to showcase new technologies and improved chicken and duck varieties developed at the Institute. Drawing and extempore speech competition on Science and its role in the society were conducted for the students.



g. National Webinar organized at ICAR-DPR

A national webinar on "Advances of veternary Sceiences during 75 years of indian Independence was organized by the Directoate in colloboration with Dr C.M. Singh Endowment Trust on 30th march 2022. Dr V.K. Saxena, Assistant Director General (AP&B), ICAR, New Delhi, and Dr J.M. Kataria, Ex. Director, ICAR-CARI, Izatnagar, Bareilly, UP delivered lectures during the webinar.

h. Programme on Annadata Devo Bhava organized

ICAR-DPR organized farmer training programs to celebrate "Annadata Devo Bhava" campaign of Azadi ka Amrit Mahotsav on 23rd April 2022.

A training program on "Backyard Poultry Farming for Small and Marginal Farmers" was organized at the MGMG adopted village Bavoji Thanda, Balanagar Mandal, Mahboob Nagar District, Telangana. Forty farmers from the village actively participated and got benefitted from the training program.



i. Training programs on natural farming and entrepreneurship development

A training program on "Promotion of natural and organic farming"

was organized at ICAR-DPR, Hyderabad on 23rd April 2022. A total of 25 participants from nearby villages in the Rangareddy District participated in the program. The farmers were explained about the role of backyard poultry and its importance in natural farming. The concept of poultry waste management and the advantages of making compost and vermicompost out of poultry litter were explained to the farmers.



A training programme on "*Creation of Entrepreneurship in Poultry Farming*" was organized on 20th April 2022 for young poultry farmers and M.V.Sc students of Veterinary College, Rajendranagar, Hyderabad. Shri. C.V. Rao, Chairman, Chalimeda Feed (P) Ltd and Chief Guest apprised the entrepreneurial opportunities in the livestock sector, especially in the animal feed sector and motivated participants to become entrepreneurs and provide jobs to others.



j. Awareness programme on Biofortification

Awareness on Biofortification: Kisan Bhagidari Prathmikta Hamari campaign

The Directorate organized an awareness program on "Biofortification-Improving Nutrition for reducing malnutrition" under the *Kisan Bhagidari Prathmikta Hamari* campaign of *Azadi Ka Amrit Mahotsav* at the MGMG adopted village in Mahbubnagar district of Telangana on 28th April 2022. About 50 farmers' families and children of the village actively participated in the programme.



k. National Seminar organized

The Directorate organized an one-day National Seminar in collaboration with Indian Poultry Science Association-Telangana and Andhra Pradesh Chapter on the topic "Revisiting poultry production and marketing systems for addressing the fast changing consumer preferences" on 6th May 2022. Dr. R.N. Chatterjee, Director welcomed the dignitaries and highlighted the role of Poultry industry and its contribution to the national economy. Dr. S.V. Rama Rao, Principal Scientist elaborated on the theme of the National Seminar and its high relevance during this pandemic era. Dr. V. Ravinder Reddy, Vice Chancellor, PVNRTVU, Hyderabad, the Guest of Honour for the Seminar, emphasised the need to support the poultry farmers by providing the feed ingredients in time at a reasonable cost. He also opined that proper biosecurity and health measures should be taken to control the emerging and remerging poultry diseases.

The Chief Guest of the programme, Dr. G. Ranjith Reddy, Member of Parliament (Lok Sabha), Chevella Constituency, Telangana appreciated the efforts of the Directorate in organizing the Seminar at this crucial time when feed prices are skyrocketing and creating havoc for the poultry industry in the country. He said that the deliberations should focus on highlighting the health benefits of egg and chicken meat, and also convince the customers about the myths circulating in the social media about chicken and eggs. He advocated that the industry should stay strong in marketing, publicizing and advertising their products. He also encouraged the young Veterinary graduates to venture into the poultry sector as there are lot of opportunities. A book on "Poultry Feed: Region specific" authored by Dr. S.V. Rama Rao, Dr. A. Kannan and Dr. M.V.L.N. Raju was released by the chief guest. They also released the "Vermipoul" a vermicompost developed by the team led by Dr. R.K. Mahapatra from poultry litter using dry leaves, etc.

Eight lectures were delivered by eminent speakers in the field of poultry. The Seminar was attended by Scientists from DPR, Officials, staff and students from the Veterinary University, Poultry entrepreneurs and industry representatives from AP and Telangana (TS), officials from the AH Department and members of IPSA-TS and AP chapter.



I. Training for Foundation course trainees

ICAR-DPR conducted a special training session on 'Importance of R & D activities in the Livestock and Poultry Sector' for the newly recruited young faculty of Veterinary and Fishery Sciences of PVNRTVU Hyderabad and OUAT, Bhubaneswar undergoing Foundation Course at ICAR-NAARM on 24.05.2022 and 27.06.2022, respectively. Dr. R.N. Chatterjee, Director, welcomed the faculty and delivered a lecture on the Research and Development in the Livestock and Poultry sector. He discussed the various strengths, weaknesses, opportunities and threats in the livestock sector and how they can be addressed successfully to benefit the farmers. He also encouraged the young faculty to concentrate equally on imparting quality education to the veterinary graduates with recent advancements in science and also involve themselves in research activities by obtaining extramural research grants from ICAR, DBT, DST, SERB, RKVY etc.



TRANSFER OF TECHNOLOGY

a. MoU Signed with M/s Chalimeda Feeds

Two agreements were made on "Advisory consultancy services on feed and disease related field issues in poultry" and "Contract Services on feed analytical and disease diagnostic activities" and MoUs were signed between, ICAR-Directorate of Poultry Research, Hyderabad and M/s Chalimeda Feeds Pvt. Ltd., Karimnagar, Telangana on 20th April 2022 for the period of one year. The agreements were exchanged between Dr R N Chatterjee, Director, ICAR-DPR and Shri C V Rao, Chairman and Managing Director, Chalimeda Feeds Pvt Ltd, Karimnagar.



b. SCSP

The Directorate launched the DAPSC programme in the Chengalpattu District of Tamilnadu on February 24, 2022. On-field training on backyard poultry rearing was imparted to SC farmers of Valluvapakkam in Madhurandakam Block and Kayanallur in Chithamur Block in the Chengalpattu district of Tamilnadu. Night shelters, feed, waterer, feeder and Aseel native birds were distributed to 100 SC farmers.

In Andhra Pradesh, two field training and input distribution programmes were organised in Mulpuru and Kuchipudi villages of Amruthalur Mandal, Guntur district, on 02.06.2022. A total of 200 SC families were trained on backyard poultry farming and improved variety of grownup birds, feed, temporary night shelters, a medicine and vitamins, and pamphlets on backyard chicken farming were distributed.



Input distribution under DAPSC at Kayanallur (V), Tamilnadu

c. TSP

The Directorate distributed native Kadaknath and Ghagus chicken and Gramapriya, improved backyard chicken to tribes of Dopiguda and Mallapur villages (Indervalli Mandal), Adilabad district (Telangana) on 8th April 2022 under the DAPST (TSP) programme. The programme aimed at improving the livelihood and nutritional security of remote tribal families through enhanced egg and meat production. Improved chicken varieties, night shelters, feeders, waterers and feed were distributed to 54 farmers of Dopiguda village and 96 tribal farmers of Mallapur.



Tribal women beneficiaries with night shelter for birds at Mallapur village

MEETINGS CONDUCTED

a. Secretary & Commissioner, Tribal Welfare Development visited ICAR-DPR

A preparatory meeting to create livelihood options and sustainable development of Tribal communities through backyard poultry was held on 7th June 2022. Dr. Christina Z Chongthu, IAS-., Secretary and Commissioner of Tribal Welfare Department of Telangana informed that the Tribal Welfare Department is planning to implement the backyard poultry scheme for primitive vulnerable tribal groups (PvTGs) in Telangana state. The Secretary shared the plan and objectives and also explained their technical and other expectations from ICAR-DPR. Dr. R.N. Chatterjee assured to provide the necessary technical support for establishing the mother unit, parent farm and hatchery unit at different ITDAs. He also informed that old chicks of improved rural chicken varieties for rearing at mother units and parent germplasm for multiplication at parent farm will be provided.



b. Annual Institute Research Committee meeting

The Annual IRC meeting chaired by the Director Dr. R.N. Chatterjeewas held on 14-15 June 2022 at the Directorate. The Director reviewed the progress of the Institute projects for the year 2021-2022. He appreciated the work done by the scientists and suggested corrective measures for further improvement. Dr. T.K. Bhattacharya acted as the Member Secretary for the meeting.

c. Institute Joint Staff Council meeting

3rd Meeting of 11th Institute Joint Staff Council meeting was held on 17th March, 2022 & 4th meeting of 11th IJSC was held on 8th July, 2022 for the June Quarter.

d. Women's Grievance Cell meeting

Women's Grievance Cell Meeting was held on 20th January, 2022 & was held on 12th July, 2022 for Jan-June quarter.

Germplasm Supply (DPR-HYD)

DPR: During the period Jan to June, 2022, a total of 1,83,093 chicken germplasm was supplied (including 23,751 parent germplasm) to different stakeholders. A total of 23,787 day old chicks were supplied to DPR farm.

Germplasm Supply (AICRP-PB)

AICRP-PB: A total of 2,66,848 germplasm were sold by different centres of AICRP-PB.

AKMU

- Webpage of institute was frequently updated and had about 5.77 lakh hits during the period Jan to June 2022 with an average of 3,163 visits per day. Payment Gateway link has been maintained in DPR webpage.
- ICAR-DPR Mobile App: An Android App in English maintained and provides information about institute, chicken germplasm, AICPR on Poultry Breeding, Poultry Seed Project, germplasm availability, etc. About 322 users downloaded during the period Jan to June 2022. A total of 3747 users download the mobile app since launching. Average rating given by 30 users was 4.53 out of 5.
- ICAR-DPR Poultry YouTube channel: DPR Profile and several informative videos are available in.https://www.youtube.com/channel/UCDL2gnmjtzabrxX39waOITA. A total of 31,333 views were recorded during Jan to June 2022 period. About 3,767 users subscribed to the channel.
- Facebook page https://www.facebook.com/ICAR.DPR. Hyderabad and Twitter handle https://twitter.com/ IcarPoultry were maintained for effective dissemination of information to farmers and poultry entrepreneurs.

S.No.	Particulars of Training	Official(s)	Schedule	Venue
1.	Short term Bio informative training on NGS Hybrid genome assembly at Arraygen	Dr. S. Jayakumar Sr. Scientist	12/1/2022 to 18/1/2022	Pune
2.	4 th International conference on veterinary and live stock	Dr. D. Suchitra Sena Pr. Scientist	28/3/2022 to 29/3/2022	Goa
3.	National symposium on self – reliant coastal Agriculture	Dr. R.N. Chatterjee Director Dr. U. Rajkumar Pr. Scienitst	11/5/2022 to 12/5/2022	Goa
4.	Online Training Programme on "National Pension System"	Smt. T.R. Vijaya Lakshmi A.A.O; Smt. N. Siva Dharani L.D.C	16/6/2022 to 18/6/2022	ICAR-NRRI, Cuttack, Odisha
5.	20 th Annual convocation cum scientific convocation of NAVS (I)	Dr. R.N. Chatterjee Director Dr. U. Rajkumar Pr. Scientist	20/6/2022 to 21/6/2022	Nagpur
6.	Australia India Council International workshop on Climate change and livestock production: Current scenario and way forward	Dr. S. Jayakumar Sr. Scientist Dr. Shanmugam M Sr. Scientist	11/4/2022 to 13/4/2022	NIANP, Bengaluru
7.	Online Interface Meet on "Characterization and Documentation of Animal Genetic Resources of Telangana State: A Mission towards Zero Non-Descript Population"	Dr. L. Leslie Leo Prince Pr. Scientist	10/1/2022	ICAR-DPR, Hyderabad
8.	National Webinar on "Advances of Veterinary Sciences during 75 Years of Indian Independence" as part of Dr. C.M. Singh Birth Centenary Year Celebrations	All Scientists	30/3/2022	ICAR-DPR, Hyderabad
9.	National Seminar in collaboration with IPSA-Telangana and Andhra Pradesh Chapter on "Revisiting poultry production and marketing systems for addressing the fast changing consumer preferences"	All Scientists	6/5/2022	ICAR-DPR, Hyderabad

HUMAN RESOURCE DEVELOPMENT

PERSONALIA

Promotions

- Dr. M. Shanmugam, Sr. Scientist has been promoted from the Grade Pay of Rs.8000-00 to Rs.9000-00 in the post of Sr. Scientist with retrospective w.e.f. 7-1-2020.
- Dr. (Mrs) T.R. Kannaki, Sr. Scientist has been promoted from the Grade Pay of Rs.8000-00 to Rs.9000-00 in the post of Sr. Scientist with retrospective w.e.f. 7-1-2020.
- Dr. K. S. Rajaravindra, Sr. Scientist has been promoted from the Grade Pay of Rs.8000-00 to Rs.9000-00 in the post of Sr. Scientist with retrospective w.e.f. 26-6-2020.
- Dr. S. Jayakumar, Sr. Scientist has been promoted from the Grade Pay of Rs.8000-00 to Rs.9000-00 in the post of Sr. Scientist with retrospective w.e.f. 7-1-2021.
- Dr. Dhirendra Kumar, Scientist has been promoted from the Grade Pay of Rs.7000-00 to Rs.8000-00 i.e from the post of Scientist to Sr. Scientist with retrospective w.e.f. 7-1-2018.

Retirements

Sri A.V.G.K. Murthy, S.A.O. has retired on superannuation on 28-02-2022.

Editorial Board:

Dr. K.S. Rajaravindra, Sr. Scientist; Dr. Santosh Haunshi, Pr. Scientist; Dr. M. Shanmugam, Sr. Scientist; Dr. M.V.L.N. Raju, Pr. Scientist



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ISO 9001:2015