



W B U A F S

NEWS

LETTER



WEST BENGAL UNIVERSITY OF ANIMAL & FISHERY SCIENCES ➡ Vol.6 No.1, December, 2014

FROM THE VICE CHANCELLOR'S DESK



The West Bengal University of Animal & Fishery Sciences is now considered to be in its blooming stage since it will attain 20 years of age on 2nd January, 2015. The role of livestock and poultry, dairy and aquaculture towards socio-economic upliftment is very important since the agricultural production has reached almost its peak potential. With the high growth of human population in the State and thereby increase in population density per unit area, it is very much necessary to enhance the production of food from animal origin to supply good quality protein to the human population. This University has the main objective to produce quality human resources required to enhance production through technological intervention in the area to meet the growing demand of

animal protein and thereby providing quality nutrition to human beings. Hence, the University is relentlessly trying to provide better infrastructure, academic environment, good quality research and extension activities to achieve the goal. I am thankful to all the students, teachers and non-teaching employees of this University for their involvement in such a noble cause. On the occasion of the publication of the present issue of the University Newsletter, I congratulate the entire team involved in this work.

Prof. Purnendu Biswas
Vice Chancellor

INAUGURATION OF RENOVATED CAMPUS AT MOHANPUR



Inauguration of renovated campus of Veterinary Faculty took place on 17th August, 2014. Hon'ble MIC, Deptt. of ARD, Govt. of W.B. Sri Swapan Debnath inaugurated the ceremony. Sri Ujjwal Biswas, Hon'ble MIC, Deptt. of Technical Education & Training, Govt. of W.B. was present in the occasion as special guest. Secretary, ARD Sri Rajesh Sinha, Director of Veterinary Services, other officers of Govt. of West Bengal, Public Representatives of Nadia District, Hon'ble V.C., WBUAFS, Registrar, Director of REF, Deans of three faculties, Faculty Members, Officers and staff of the University participated in the gathering. Different News Channels and reporters covered the news. UG classes of Faculty of Veterinary & Animal Sciences were started in the renovated campus on and from 26th August, 2014.

FROM THE DESK OF THE EDITOR



Looking back at the pass through sphere of attainments, the West Bengal University of Animal and Fishery Sciences has adequate foundation to exhilarate that necessitate to be documented for wider dissemination vis-a-vis adoption. I felt the need of

publication of newsletter which can build up a platform to interact with all stakeholders within and outside the University. I hope this newsletter would be helpful in giving out of information about various academic activities including research and extension events of the University. On the said milieu it is perceptible that the University is moving forward with its responsiveness and professionalism.

The new dynamic personalities fastened together with the University, the undergraduate courses shifted from Belgachia to Mohanpur campus in the lap of the nature, the diversity in research works and passing on variety of extension services have been achieved by the University meanwhile. The present chronicle of consistent efforts and constitutive endeavours would definitely keep alive the vibrant flourish of the University.

The team under the visionary capability of our Hon'ble Vice Chancellor, Prof. P. Biswas which facilitated in bring out this newsletter is commendable and I put on record my appreciations to him in particular and for all in general.

Prof. Subhasish Biswas

Director of Research, Extension & Farms

PROPOSED NEW DEPARTMENTS

Post Graduate courses are to be introduced in **Animal Biotechnology** and **Poultry Science** in the faculty of Veterinary and Animal Sciences.

One new Department is going to function in the faculty of DT named as **Dairy Business Management**.

A new Department is going to be started in the faculty of Fishery Scs. named as **Fishery Nutrition**.



VIVEKANANDA CENTRE FOR POSITIVE THINKING

'Vivekananda Centre for Positive Thinking' was inaugurated by Swami Atmapriyananda, Hon'ble Vice-Chancellor, Ramakrishna Mission Vivekananda University, Belur Math on 26th November, 2014 at University Auditorium, Mohanpur. Hon'ble Vice-Chancellor, Registrar, Director of Research, Extension & Farms, Deans of the Faculties and other dignitaries were present in the auspicious ceremony. All the students, Faculty members, Officers and staff of the University were a part of the inauguration programme, WBUAFS is the pioneer to set up such a centre at the university level.

VISIT OF VCI TEAM

A team from Veterinary Council of India visited the Mohanpur Campus, Nadia during 18th-20th December, 2014. Dr. A.G. Karpe, Prof. & Head, Microbiology, CVSC & AH, Parwani, Mafsu, Dr. N.K. Dikshit, Prof. & Head, Vety. Physiology, CVSC & AH, Mhow, M.P., Dr. S.K. Tiwari, Prof. & Head, Vety. Surgery & Radiology, CVSC & AH, Anjora, Durg, Chhattishgarh were among the team members. Hon'ble Vice Chancellor and other Officials of the University accompanied them. They visited the different departments of the renovated campus and expressed their views.



SPECIAL HONOURS/ AWARDS

- ❑ Prof. Subhasish Biswas, Director of Research, Extension & Farms was conferred Juthika Chakraborty Memorial Award 2014 for his scientific excellence and commendable contribution to the society by The Science Association of Bengal on 28th February, National Science Day, 2014.
- ❑ Prof. Samar Sarkar, Department of Veterinary Medicine, Ethics & Jurisprudence was honoured as Fellow of Association of Public Health Veterinarians.
- ❑ Dr. Joydip Mukherjee, Lecturer, Department of Veterinary Physiology received Kamala Madan Memorial Young Scientist Award of Society of Animal Physiologists of India – 2014. This award recognized the research work performed by Dr. Mukherjee on lactation physiology.
- ❑ Dr. Satabdi Das, Scientist (Selection Grade), DREF received performance award as Nodal Officer of NISAGENET from ICAR at CSAUA&T, Kanpur on 11th-12th November, 2014.
- ❑ Dr. Sunit Kr. Mukhopadhyay, Associate Professor, Deptt of Veterinary Pathology is honoured by IAVP Lifetime Achievement Awards of 'Best Farm Animal Pathologist - 2013' and 'Best Laboratory Animal Pathologist-2014'.

STUDENTS' CURRICULA

Students of the University ranked second at National Veterinary Physiology Quiz



A team comprising two students Mr. Subhomoy Ghosh, 4th year BVSc&AH and Ms. Chayna Singha Mohapatra, 3rd year BVSc&AH ranked first in Eastern Zone and second in National level competition of National Veterinary

Physiology Quiz. The team stood first at institute level amongst 13 teams. Prof. A. K. Samanta, Registrar of the University encouraged the participating students in a programme held on 5th September, 2014 at University Auditorium, Mohanpur. Institute level programme was organised by the Department of Veterinary Physiology, Faculty of Veterinary & Animal Sciences and Dean of the Students' Welfare in response to the call of Society of Animal Physiologists of India (SAPI). Prof. P. Biswas, Hon'ble Vice Chancellor of the University motivated the students by awarding the contesting teams at zonal level programme held on 15th September, 2014. Finally, the team was runners up at National Level Competition, where team of COVS, Pantnagar, Uttarakhand won the 'Madan Trophy'. Dr. M. L. Madan, Eminent Physiologist and Dr. P. K. Das, General Secretary of SAPI awarded the team on 27th November, 2014 at CIRB, Hisar, Harayana.

Award & Lecture of Alltech

Farhan Haque and Sutanu Karmakar, won graduate and undergraduate 'Alltech Young Scientist (AYS)' award respectively at global level in the Asia-Pacific region for 2014. Alltech team organised a 'University Lecture Tour' at the Faculty of Fishery Sciences, Chakgaria on 11th June, 2014 to interact with students and awarded the winners.

ASRB NET & JRF

Twenty (20) students have qualified for JRF of ICAR in the last year out of which Fourteen students were from the Faculty of Fishery Sciences. Ten students from the Faculty of Fishery Sciences qualified ASRB NET 2014.



In recognition of this success, Hon'ble Minister-in-Charge, Department of Fisheries, Govt. of West Bengal along with other dignitaries felicitated the successful candidates on 24-06-2014.

Central Library has set up an unit at Mohanpur Campus recently for the use of the Undergraduate Students of the Faculty of Veterinary and Animal Sciences.

MEETING/SEMINAR/ SYMPOSIA/OCCASSIONS /EVENTS



- The 22nd Meeting of ICAR Regional Committee-II was held on June 27-28th, 2014 at Central Inland Fisheries Research Institute, Barrackpore. Dr. S. Ayappan, Secretary DARE, GOI & DG, ICAR, Dr. B. Meenakumar, DDG (Fishery), ICAR, Dr. A.K. Vyas, ADG (Coordination), ICAR, Prof. A.P. Sharma, Director, CIFRI, Barrackpore and Hon'ble Minister from West Bengal, Odisha, Andhra Pradesh and Telengana were present in the meeting. Hon'ble Vice Chancellor and DREF from WBUAFS have represented the University in the said meeting. Status of Agricultural Research and Education was discussed and recommendations were made for handling location specific problems of different sectors like agriculture, animal husbandry, fisheries, etc.

- The German Development Bank (Bank aus Verantwortung - kfw) wants to support sustainable aquaculture for small and marginal farmers through loan cum grant based Support Programme in India under Indo German Financial Cooperation. In this context, the bank has signed a Memorandum of Understanding (MoU) with the University on 31.10.2014 for conducting a Pre-Feasibility Study for an envisaged Sustainable Aquaculture (both Freshwater & Brackish water) Programme.

- Prof. P. K. Senapati, Dean, Faculty of Veterinary & Animal Sciences, WBUAFS attended the Vth Deans Committee meeting held at Madras Veterinary College on 8th and 9th December. Discussion took place on UG & PG Syllabus and in the curriculum necessary modifications were made.

- Prof. B. K. Das, Dean, Faculty of Fishery Sciences, WBUAFS attended the Vth Deans Committee Meeting of ICAR for revising B. F. Sc. Course Curriculum at College of Fisheries, Mangalore, during November 19th and 20th, 2014.

- Prof. T.K. Maity, Dean, Faculty of Dairy Technology, WBUAFS attended the meeting of all Deans of Dairy Technology Colleges convened on 6th December, 2014 at NDRI, Karnal. The main focus was on revision of Curricula/Syllabi of Dairy Technology courses where discussion also took place on enhancement of manpower, infrastructure, laboratory set-up etc.

- Dr. J. K. Jena, Director, NBFGR & National Co-ordinator of the project entitled "Surveillance of Freshwater Fish and Shell Fish diseases in West Bengal" visited the faculty of Fishery Sciences on 8th August, 2014.

RESEARCH FOCUS

Leptin protein of Black Bengal goat isolated, purified and immunobiochemical characteristics revealed

The native leptin protein of Black Bengal goat was purified and Immunobiochemical characterization was carried out for the first time in the department of Veterinary Microbiology. The molecular mass of leptin was found as 16kDa by western blot analysis and as 15948.72 Da by MALDI-TOF mass spectrometry. Sero-diagnostic potentiality of goat leptin was confirmed by dip-stick ELISA.

Outreach Programme on Zoonotic Diseases under Dept of Veterinary Public health, isolated 8 different species of dermatophytes and *C. Neoformans* isolates were isolated from different samples. Under the programme around 35 Health camps were organized to generate mass awareness about the diseases.



RKVY on "Livelihood Improvement of Poor And Tribal People through Livestock based Enterprises under Selected Villages of Jhargram Block" has been started on 1st July, 2014. Dr. Manik Chadra Pakhira is the P.I. of the project. Total Budget for the year 2014-15 is 230.60 Lakh. Lodhasuli, Aguibani and Patashimul Gram Panchayet under Jhargram Block of Paschim Medinipur has been selected as the area of operation for the project.



Dr. B K Chand, P.I. of the project presenting at the Forum in Philippines.

Demonstration Project on Climate Change Adaptation presented at Philippines

The Demonstration project of the University under Climate Change Adaptation in Rural Areas of India (CCARAI) was nominated from India for presentation at Regional Forum on Solutions for Oceans, Coasts and Human Well-Being in Asia and the Pacific held during 27-30 May, 2014 in Cebu City, Philippines. The forum was organized by the Blue Solutions (An initiative of GIZ) and the World Future Council. Dr. B K Chand, Farm Manager (Sel. Gr.) & Principal Investigator of the project participated in the said forum. He delivered a talk on "Disaster Preparedness and Building Livelihood Resilience in Indian Sundarbans". The Forum gave a huge platform to showcase University activities in the field of climate change adaptation among countries of Asia-Pacific region.



Salient achievements of AICRP on Goat Improvement (Black Bengal Field Unit), Kolkata

AICRP on Goat Improvement (Black Bengal Field Unit, Kolkata), presently working in three clusters, i.e. Sundarban, Nadia and Murshidabad district, with 788 numbers of registered Doe from 510 farmers. Bamunia and Beliapukur village under Murshidabad cluster has been adopted during 2014 in collaboration with KVK, Digha, Murshidabad. During 1st April'2014 to 31st December'2014 841 kids were born from 453 kidding of which twin born kids are the

highest (55.89%), followed by triplet kids (21.40%), singlet kids (17.48%) and quadruplet kids (5.23%). Goat keepers of adopted villages got the benefit of using 20 nos. of superior Black Bengal bucks. Further three buck production centres have also been developed at three different locations. Overall improvement in body weights and different reproduction traits particularly kidding rate of 1.86 has been achieved. With the intervention of regular deworming cum mineral mixture distribution camps, vaccination camp and regular health check up, the mortality is restricted within 4.23%. Beside five numbers of farmers training programme covering all registered farmers and seven numbers of awareness cum interactive sessions has also been conducted in adopted villages during 2014. There is substantial increase in sale of number of goats as well as average income of farmers has increased to Rs 4243/- with a maximum limit of Rs 10230/- in 2014.



Hon'ble Vice Chancellor of WBUAFS in a farmers training programme at Sundarban cluster

West Bengal possess potent vector of Bluetongue virus

Bluetongue virus serotype-16 (BTV-16) could be isolated from *Culicoides* sp. in the ICAR sponsored All India Network Programme on Bluetongue at Deptt. of Veterinary Microbiology that West Bengal possesses potent vector of BTV that pose a menace and warrants control-based strategies.



Release of Bluetongue folders on regional languages by Prof. Gaya Prasad, Hon'ble ADG (AH), ICAR (in the left). Also seen are Dr. Rishendra Verma, JD (CADRAD), IVRI (in the right) and Dr. S. N. Joardar, PI, AINP-BT, Kolkata centre

DBT Twinning Programme for NE- ESBL

In the DBT Twinning Programme for North Easterns Region on ESBL in the Dept. of Veterinary Microbiology detected the *invA* gene belonging to *Salmonella typhimurium* and *S. enteritidis* serovar by PCR analysis in 21.4% of *Salmonella* isolates from backyard poultry reared in different agro-climatic zones of West Bengal.

Avian pathogenic *E. coli* (APEC) gene *astA* was detected by PCR analysis in 12.83% *E. coli* isolates from backyard poultry reared in different agro-climatic zones of West Bengal.

MOLECULAR CHARACTERIZATION OF MYXOSPOREANS INFECTING THE AQUACULTURED FINFISH OF WEST BENGAL

Myxosporeans are best known for the diseases they cause in commercially important fish species. Even though most of them are not harmful to fish, some species cause diseases. With the expansion in freshwater aquaculture, several myxosporeans have been found to be important pathogens. Identification of myxosporeans at the species-level is mainly based on conventional methods.



Mature spores of *Thelohanellos caudatus* from fresh wet mount preparations (bar = 1 µm)



Scanning electron micrograph of mature spores of *Thelohanellos caudatus*

Under the ICAR funded Niche Area of Excellence programme entitled "Surveillance of diseases of aquacultured finfish and shellfish in West Bengal and development of disease management strategies", molecular characterization of fin-infecting, gill infecting and gut-infecting myxosporeans of cyprinids were attempted. A total of 29 morphologically identified myxosporeans comprising *Thelohanellos* spp. (n=19) and *Myxobolus* spp. (n=10) have been characterized by molecular tools for the first time in India and the 18S rRNA gene sequences have been submitted to the NCBI GenBank database.

National Service Scheme (NSS)

The University has organized six NSS programmes in different parts of the State, particularly at Rangabelia, Namkhana and Lodhasuli. In those programmes, animal health camp and vaccination was done for more than 4000 animals of different categories. Both girls and boys NSS volunteers from the three faculties have participated the programmes with great enthusiasm. Prof. A. K. Samanta, Dean of Students Welfare and the Programme Coordinator of NSS inaugurated the programmes and Programme Officers guided the students during the camps. Such programmes became 'hands on' training for the students as they could learn the practical aspect of animal training in field condition.



Performance Award received in NISAGENET Project of the University

"National Information System in Agricultural Education Network (NISAGENET)", an ICAR funded Network Project is running under the Directorate of Research, Extension & Farms, WBUAFS. The Nodal Officer of NISAGENET has received "Performance Award" from Indian Agricultural Statistics Research Institute (IASRI), New Delhi for excellent Performance in the project since its introduction in WBUAFS from 01.01.2005. The award was given to her at the Workshop held during 11th & 12th November, 2014 at Chandra Sekhar Azad University of Agriculture & Technology, Kanpur. NISAGENET Cell of WBUAFS is going to introduce e-learning portal on Agriculture Education "e-Krishi Siksha" at WBUAFS shortly.



NEWS FROM FARM

Registration of Khoongroo Pig breed in India

After intensive work in the Conservation of Khoongroo pig on improvement and characterization of the breed for over 10 years in the University, the breed has been registered as the first registered pig breed of India.

The Registration number is

INDIA_PIG_2100_KHOONGROO_09001



Registration of Haringhata Black Chicken breed in India

The in-situ conservation of Haringhata Black Chicken was carried out under the University. Haringhata Black Chicken is native to the Haringhata block of Nadia district and one of the fifteen registered chicken breeds of India. (Registration No. INDIA_CHICKEN_2100HARRINGHATABLACK_12008). With the help of ICAR, in-situ conservation programme has been undertaken in all 44 households of village Sonakhali, Birohi -1 GP, Block Haringhata, Dist-Nadia. It may be relevant to add that ex-situ conservation of the same breed has been undertaken by the University during 11th Plan with fund assistance from Government of India.

Strengthening the Research and Instructional Capabilities of Mohanpur Fish Farm Complex

Aquaculture is an integral part of the farming system in West Bengal and farmers mostly use their homestead ponds where fish is cultured traditionally. In the era of advancement of science and technology, aquaculture practice should not be restricted to age old method. In order to strengthening the research and instructional



capabilities of Mohanpur Fish Farm Complex, a wet laboratory comprising of 10 numbers of large cemented tanks (20' X 8' X 4') and 20 numbers of small cemented tanks (8' X 4' X 3') were constructed. Under

NICRA project, another wet laboratory was constructed with 16 FRP tanks to conduct research trials. Created facilities are sufficient to conduct various training interventions which aims at providing basic technical and entrepreneurial skill to the students and rural farmers.

EXTENSION HIGHLIGHTS

KVK ACTIVITIES

Jalpaiguri KVK organized World Food Day on 16th October, 2014 at the Ratherhat village and ARANNYA SAPTAHA in collaboration with Dept. of Forest, Ramshai Range at the KVK campus. The Director of Animal Husbandry & Veterinary Services had taken a prompt action for avoiding the epidemic of Japanese Encephalitis in the district of Jalpaiguri and adjacent districts by adopting the infrastructures of piggery shed and old dairy shed of the KVK for temporary sheltering the pigs of North Bengal region. At that time the ARD department had opened a Camp Office at the KVK campus and a medical team of the ARD had stationed at the KVK premises for monitoring the programme.



North 24 Parganas KVK in the current financial year has covered 46 no. of training programme to rural youth and practising farmers benefitting 1420 no of beneficiaries, 81 field visits, 38 no of extension activities covering 730 beneficiaries, Information on Guidance on agricultural technology and technology product to 556 farmers, 6 Field Level Demonstration (FLD), 6 On Farm Trial (OFT) and 221 short message service helping 267861 farmers in North 24 Parganas District.

In the polyhouse owned by KVK Elephant foot yam (OI),



cabbage, cauliflower, capsicum, radish, chilli, spinach and many seasonal vegetables are grown scientifically with great success. Apart from this the KVK also cultivated different varieties of rice like Heera, Gobindovog, Radhunipagol etc inside its farm area. Significant no of farmers are being encouraged by KVK personnel to rear "Vanaraja" as backyard poultry farming system.

Murshidabad KVK

Murshidabad KVK has organised three numbers of Technology Week cum Krishi Mela for 5 days duration of each at KVK campus, Raninagar-I and Lalgola blocks, which was sponsored by NABARD. KVK has conducted training programme for the 2 batches of ex-volunteers of Nehru Yuva Kendra (NYK) with their financial assistance. The trainees would act as the extension personnel at different blocks of Murshidabad district for the farming community. Besides, KVK has sold its farm products - 1000 Mango seedlings to Horticulture Department, Murshidabad district, Govt. of West Bengal.



Book published for Veterinary students and field Veterinarians

A book entitled 'Techniques in Veterinary Physiology' (ISBN 819295610-5) has been published in the month of August, 2014 by West Bengal Veterinary Council. This well illustrated stepwise demonstrated book will help the students of Veterinary Sciences as well as field Veterinarians. The book is written by the teachers of the Veterinary Physiology department.

Refreshers' Course on assessment of animal health for the field Veterinarian

The Department of Veterinary Physiology and the Department of Veterinary Biochemistry jointly conducted Refreshers' Course for Field Veterinarian on 'Advancement of Physio-biochemical Techniques for assessing Animal Health' in collaboration with West Bengal Veterinary Council and Directorate of Animal Health & Veterinary

Sciences for 3 days (one batch) and 5 days (one batch) during the last year. Trainees tested the samples and recorded the environmental parameters as well as various physiological attributes to correlate its health status. The programme was inaugurated by Dr. M. K. Tewari, President WBVC. Eminent Physiologist Dr. N. K. Bhattacharya grace took place the occasion. Valedictory session under the chairmanship of Dr. S. Bose, Hon'ble Director of Animal Husbandry & Veterinary Services and in presence of Prof. A. K. Samanta, Registrar of the University. It was decided that the organizing departments could provide the kits for testing the samples at field level as per demand. The programme was conducted by the Joint Course Coordinator Dr. P. K. Das and Dr. S. Batabyal, HODs of the organizing departments.



Dr. S. Bose, DAH&VS & Prof. A. K. Samanta, Registrar of the University at the Refreshers course Valedictory Session

Workshop on 'Role of skilled manpower in agricultural field for inclusive rural development'

Workshop on Role of skilled manpower in agricultural field for inclusive rural development was organized on 22nd March, 2014 by Directorate of Research, Extension of Farms with the assistance of ICAR. A total of 103 participants were present in the Workshop including Prof. S. Manna, Former Vice Chancellor, Sidhu-Kanu-Birsa University; Prof. D. Dasgupta, Ex Vice Chancellor, BCKV; Prof. P. Biswas, the

then Registrar, WBUAFS; KVK employees; scientists, scholars, faculty members from WBUAFS; student from Department of Agriculture and Rural Development, West Bengal State University (Barasat); Department of Rural Development Management, University of Kalyani; Faculty of Integrated Rural Development Management, Narendrapur Ramkrishna Mission Vivekananda University; Department of Social Studies and Rural Development, Visva Bharati.



Dignitaries on the dias in workshop on Role of skilled manpower in agricultural field inclusive rural

Participation in Book Fair

WBUAFS participated in Kalyani Book Fair during 6th - 15th December, 2014. University publications, models and photographs were displayed in the University stall.



Release of 'Srijan'- magazine of Employees' Recreation Club

Employees' Recreation Club

The employees of the University have formed Employees' Recreation Club on 9th April, 2014 through a general meeting represented by the employees of three faculties including head quarter. The house has formed a committee with twenty-nine executive members representing all tiers of employees i.e. Officers, Faculty Members and Non-teaching employees of the University.

The Recreation club has already organized Rabindra-Najrul Jayanti on 13th June, 2014, Vijaya Sammelani on 28th October, 2014. It has also organized an inter-faculty football tournament.

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