



NRCCE

National Research Centre on Equines

राष्ट्रीय अश्व अनुसंधान केन्द्र



News Letter

July – December 2010 Vol. XVIII Issue 2

SECTORAL | NEWS

Platelets might play early role in laminitis

Laminitis begins well before clinical signs occur, at the cellular or even at the molecular level. The components of laminitic inflammation at the cellular level are neutrophils, platelets, and monocytes. Platelets upon activation aggregate or form clot and then change its shape radically. Platelets also contain and release vasoconstrictors that cause restriction of blood flow in the foot and ultimately lead to laminitis. Subsequent studies have confirmed that platelet aggregation is an early indicator of laminitis. Platelets start interacting with the endothelium and cross the barrier for its entry into laminae causing breakdown of laminar of the foot. Prevention of these cells to be activated and getting entry into laminae could block the pathology and may help in early prevention of laminitis.

Jamie Textor, 2010. In : *Laminitis West Conference*. Monterey, California, USA.

Specific gene thought to determine athletic ability

Two separate research teams have identified the myostatin gene as a crucial indicator of athletic ability in a Thoroughbred's genetic makeup and are continuing to study the potential of this marker for race distance selection. The team used the Equinome Speed Gene test to analyze the DNA of nearly 150 Thoroughbreds. The results of the test indicated at what distance a horse would likely be most competitive. More specifically, the researchers found that three genetic markers on Chromosome-18 - where the myostatin gene is located - had a positive correlation with performance.

Hill, EW et al. 2010. *PLoS One*. 5(1):e8645.

Tozaki, T., et al, 2011. *Animal Genetics*, DOI: 10.1111/j.1365-2052.2011.02201.x

New horse blood microbe identified

Swiss researchers have reported identification of a "hemotropic mycoplasma" from two horses with poor performance, lethargy, weight loss and anemia (low red blood cell count). Despite being known to cause infection in species such as dogs, cats, pigs and cattle, infections with hemotropic mycoplasmas in horses have not been previously reported. Hemotropic mycoplasmas are weird little microorganisms that infect red blood cells. There are various different species of them, which tend to infect specific animals, causing disease ranging from subtle (ill thrift, decreased growth, infertility) to severe (life-threatening breakdown of red blood cells). Sequence analysis revealed that the organisms isolated from the horses were closely related to *Mycoplasma haemofelis* (a hemotropic mycoplasma formerly known as *Haemobartonella felis* which can cause disease in cats). The equine version has been tentatively named "*Candidatus Mycoplasma haemobos*."

Dieckmann et al. 2010, *Veterinary Microbiology*, 145(3-4):351-3

National Research Centre on Equines, Hisar started “Kisan Call Centre” for Equine Owners



Dr S. Ayyappan answering a phone call during inauguration of Kissan Call Centre

In response to persistent requests from equine owners to start a telephone helpline to address their problems and providing advisory services on equine husbandry, NRCE started toll-free helpline number providing advisory services to equine owners at ATIC on the lines of “**Kisan Call Centre**”. The NRCE toll-free helpline was inaugurated by Hon’ble Secretary DARE and Director General Dr S. Ayyappan on 9th December, 2010 in the august presence of Prof. K.M.L. Pathak, DDG (AS), Dr C.S. Prasad, ADG (ANP), Dr R. K. Sethi, Director CIRB and Dr R. K. Singh, Director NRCE. Currently, the Kisan Call Centre of NRCE is also addressing the issues related to buffalo production in consultation with Central Institute for Research on Buffaloes, Hisar.

Dr S. Ayyappan inaugurated the telephone helpline by answering a phone call from Sh. Jaiveer Sharma, equine owner from Julana in Jind District of Haryana. The NRCE toll-free helpline number 1800-180-1233 can be accessed by equine owners from all over the country. The queries of the farmers are addressed by the experts from NRCE and advice is given to working equine owners on health and management aspects of equine husbandry.

ICAR's Deputy Director Generals and Vice Chancellors of SAUs visited NRCE Sub-Campus at Bikaner



Dr R.K. Singh briefing visiting DDG's and VC's

DDGs from ICAR [Dr Swapan K. Dutta, DDG (Crop Sc); Dr H. P. Singh, DDG (Hort); Dr K. D. Kokate, DDG (Ag. Extn); Dr A. K. Singh, DDG (NRM); Dr M. M. Pandey, DDG (Agril Engg); Dr Arvind Kumar, DDG (Edn)], Dr Bangali Baboo, National Director (NAIP); Dr T.P. Trivedi, Project Director (DKMA); Dr J.S. Samra, Chief Executive Officer, National Rainfed Area Authority and Vice Chancellors from SAUs (Dr N. C. Patel, Dr A. M. Sheikh) visited Bikaner Sub Campus on October 22-23, 2010. Director and all the staff of EPC/NRCE Bikaner was present on this occasion. Director accompanied the dignitaries and explained in detail the status of livestock and ongoing research programmes at this centre to DDGs and Vice Chancellors.

Dr S. Ayyappan, Secretary DARE and Director General, ICAR visited NRCE Sub-Campus at Bikaner

Dr S. Ayyappan, visited Bikaner sub-campus of NRCE on October 20, 2010. On this occasion, horse/donkey/mule-driven “Rotary Mode” electricity production unit was inaugurated. He was appraised of the ongoing research and other activities at the Centre and discussed with scientists about their research visions for coming



Dr S. Ayyappan interacting with scientists at EPC, Bikaner

XII five year plan. Prof. K.M.L. Pathak, DDG, Animal Science (ICAR), Dr C.S. Prasad, ADG, Animal Nutrition and Physiology (ICAR), Dr N.V. Patil, Director (NRC on Camel) and senior officers from ICAR were also present. Director, NRCE and Director, NRCC briefed about the achievements and the future plans of the respective centres to the DG and other dignitaries.

Interactive Meet on “Conservation of Marwari and Kathiawari Horses”

One-day interactive meet on “Conservation of Marwari and Kathiawari Horses” was organized at Equine Production Campus, NRCE, Bikaner on



Dr B.K. Joshi, the Chief Guest releasing the compendium

September 7, 2010. On this occasion, Dr B.K. Joshi, Director, NBAGR, Karnal was the Chief Guest. Sh. Narayan Singh Manaklao Ji (Ex-MP) and Dr Gaya Prasad, ADG, Animal Health were the Guest-of-Honor on this occasion. Meet was attended by renowned Marwari and Kathiawari horse breeders. Director, NRCE outlined the strategies of

conservation of Marwari and Kathiawari horses and emphasized on services to equine breeders.

The Chief Guest Dr B.K. Joshi emphasized the need of equine production and conservation and said that it is a right step taken at right time. The Chief Guest also released the compendium comprising of the articles on equine production management and conservation. During technical session, Director NRCE briefed about the efforts made by the centre for equine breeders and also discussed the future steps to be taken in research for the equine breeders as well as techniques for conservation of equines. In this interactive meet, the problems faced by the equine breeders were discussed in detail and many suggestions ensued from the officials of different equine societies. The session was concluded with finalization of proposal to be sent to the Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture, Govt. of India.

रजत जयंती स्थापना दिवस समारोह आयोजित

राष्ट्रीय अश्व अनुसंधान केंद्र में दिनांक 26 नवम्बर, 2010 को रजत जयंती स्थापना दिवस समारोह बड़ी धूमधाम से मनाया गया। कार्यक्रम के मुख्य अतिथि प्रो० कृष्ण मुरारी



अश्व प्रदर्शनी: पुरस्कार वितरण समारोह

लाल पाठक, उपमहानिदेशक (पशु-विज्ञान), भारतीय कृषि अनुसंधान परिषद्, नई दिल्ली द्वारा इस अवसर पर आयोजित अश्व प्रदर्शनी का उद्घाटन किया गया।

इस मौके पर कार्यक्रम के अध्यक्ष डॉ० कृष्ण सिंह खोखर, कुलपति, चौधरी चरण सिंह हरियाणा कृषि



किसान गोष्ठी

विश्वविद्यालय, हिसार तथा केंद्र के संस्थापक निदेशक प्रो० प्रेम कुमार उप्पल एवं पूर्व निदेशक डॉ० महेन्द्र पाल यादव तथा डॉ० शैलेन्द्र कुमार द्विवेदी विशिष्ट अतिथि के रूप में उपस्थित थे। कार्यक्रम की शुरुआत करते हुए अपने भाषण में केंद्र के निदेशक डॉ० राज कुमार सिंह ने आधुनिक युग में मशीनीकरण के बावजूद अश्वों की उपयोगिता तथा केंद्र की पिछले 25 वर्षों की उपलब्धियों का विवरण दिया। इस अवसर पर गणमान्य अतिथियों द्वारा संस्थान परिसर में पौधारोपण भी किया गया। मुख्य अतिथि प्रो० कृष्ण मुरारी लाल पाठक ने केंद्र के अनुसंधान कार्यों को सराहा और केंद्र द्वारा रोग निदान, निवारण एवं नस्ल संरक्षण के क्षेत्र में किये जा रहे प्रयासों की प्रशंसा की। कार्यक्रम के अध्यक्ष डॉ० खोखर ने संस्थान के उत्कृष्ट कार्यों की सराहना की।

रजत जयंती समारोह पर आयोजित अश्व क्रीड़ा, घुड़सवारी प्रदर्शन व अन्य प्रतियोगिताओं में एन.सी.सी., पुलिस तथा विभिन्न स्थानों से आए हुए घुड़सवारों ने अपने-अपने करतब दिखाए। इस अवसर पर आयोजित अश्व-पालक किसान गोष्ठी में दूर-दूर से आये 200 अश्व पालकों ने भाग लिया। किसान गोष्ठी में अश्व-पालक एवं वैज्ञानिकों ने अश्वों में होने वाली विभिन्न बिमारियों एवं समस्याओं के बारे में वार्तालाप की व वैज्ञानिकों ने अश्व-पालकों को अश्वों के रोग निदान के बारे में महत्वपूर्ण जानकारी दी।

हिन्दी सप्ताह का आयोजन

राष्ट्रीय अश्व अनुसंधान केन्द्र में 8 से 15 सितम्बर 2010 तक हिन्दी सप्ताह का आयोजन किया गया। सितम्बर 8,

2010 को मुख्य अतिथि डॉ० रमेश कुमार सेठी, निदेशक, केन्द्रीय भैंस अनुसंधान संस्थान, हिसार द्वारा दीप



डॉ० आर के सेठी हिन्दी सप्ताह समारोह का उद्घाटन करते हुए

प्रज्जवलन कर कार्यक्रम का शुभारंभ किया गया। इस अवसर के अन्तर्गत कई प्रतियोगिताएं आयोजित की गईं। जैसे भाषण एवं कविता प्रतियोगिता, सरकारी कामकाज में प्रयुक्त अंग्रेजी शब्दावली का हिन्दी अनुवाद, हिन्दी प्रश्नोत्तरी प्रतियोगिता (मौखिक), हिन्दी काव्य गोष्ठी, वाद-विवाद प्रतियोगिता। हिसार स्थित केन्द्रीय कर्मचारियों तथा रा०अ०अनु० केन्द्र के कर्मचारियों ने प्रतियोगिताओं में बढ़-चढ़ कर भाग लिया। राज्यकवि उदयभानु हंस जी की अध्यक्षता में सम्पन्न हुई काव्य गोष्ठी में हिसार के गणमान्य कवियों ने शिरकत की व अपनी रचनाएं प्रस्तुत की। हिन्दी सप्ताह के दौरान हिन्दी में अधिक से अधिक कार्य करने के लिए जोर दिया गया।

अश्व उत्पादन परिसर, बीकानेर में हिन्दी पखवाड़ा समारोह का आयोजन

अश्व उत्पादन परिसर, बीकानेर में दिनांक 14 सितम्बर से 28 सितम्बर 2010 तक 'हिन्दी पखवाड़ा' समारोह आयोजित किया गया। प्रभारी महोदय की अध्यक्षता में यह आयोजन कर्मचारियों एवं अधिकारियों की मौजूदगी



केन्द्र में हिन्दी पखवाड़ा आयोजन

में संचालित हुआ। प्रभारी महोदय ने अपने अध्यक्षीय भाषण में हिन्दी भाषा की महत्ता बताते हुए कहा कि हिन्दी भाषा में कार्य करना आसान है, आवश्यकता है तो इच्छाशक्ति की। उन्होंने हिन्दी भाषा से संबंधित कार्यों को सुचारु रूप से एवं सहज ढंग से अपनाने पर बल दिया।

इस क्रम में दिनांक 24 सितम्बर 2010 को परिसर में हिन्दी पखवाड़ा समारोह के दौरान मुख्यतः दो प्रतियोगिताओं हिन्दी भाषा के प्रचार-प्रसार हेतु आवश्यक कदम/सुझाव या हिन्दी भाषी राज्यों/क्षेत्रों में हिन्दी के प्रचार-प्रसार की आवश्यकता विषय पर निबन्ध लेखन व सुलेख प्रतियोगिता का आयोजन किया गया। निबन्ध प्रतियोगिता में श्री कमल सिंह को प्रथम, डॉ० जितेन्द्र सिंह को द्वितीय व सुलेख प्रतियोगिता में डॉ० बलविन्दर कुमार को प्रथम व श्री बृजलाल को द्वितीय घोषित कर पारितोषिक वितरण प्रभारी महोदय द्वारा किया गया। समारोह के दौरान आयोजित प्रतियोगिताओं में सभी वर्ग के कर्मचारियों/अधिकारियों के बढ़-चढ़कर भाग लेने पर प्रभारी महोदय ने प्रसन्नता व्यक्त की।

Dr S.N. Tandon superannuates, Dr Yash Pal takes over as In-charge, EPC/NRCE, Bikaner (NRCE sub campus)

Dr Suraj Narayan Tandon, Principal Scientist -cum- in-charge Equine Production Campus, National Research Centre on Equines, Bikaner retired on 31st October, 2010. He worked on various aspects of animal breeding and dealt with many animal species. He conducted research on breed differentiation, lowering the age at first

conception, reduction in inter-calving period, off-season breeding and increase in birth weight. He also worked on improving management practices to reduce foal mortality. As Principal Scientist (Animal Genetics & Breeding) and In-charge Equine Production Campus, Bikaner, he made efforts for developing research projects on production aspects, physiology and nutrition, animal breeding and reproduction and initiated collaborative research programmes with Rajasthan Agricultural University and National Research Centre on Camel (NRCC). He organized Kisan Melas/ Kisan Goshthies in animal fairs and in adopted villages. Scientists and employees of Equine Production Campus gave him a ceremonial farewell in a function organized on 30th October, 2010 and wished him a happy and healthy life after retirement. Dr Yash Pal, Senior Scientist (Animal Physiology) took over as new in-charge of Equine Production Campus, Bikaner Sub campus of National Research Centre on Equines on 1st November, 2010.

NRCE Celebrates Independence Day : ADG (AH) & Director NRCE jointly hoisted National Flag

The Centre celebrated Independence Day on 15th



Dr S.N.Tandon with staff of EPC/NRCE, Bikaner



Prof. Gaya Prasad and Dr. R. K. Singh jointly hoisting the National Flag

August, 2010 with great enthusiasm and the occasion marked gaiety and patriotic fervor. Prof. Gaya Prasad, Asstt. Director General (Animal Health) from ICAR Headquarter was the Chief Guest on this occasion. The national flag was jointly hoisted by the Chief Guest and Director, (NRCE) followed by the national anthem and a cultural event. While addressing the staff of the Centre, both Prof. Gaya Prasad and Dr Singh emphasized the need for assessing and re-orienting our self in order to come up to the expectations of the nation. The families of NRCE staff members also graced this occasion.

Vigilance Awareness Week at National Research Centre on Equines

Vigilance Awareness Week was observed at National Research Centre on Equines from 25th October to 1st November, 2010, with organization of various programmes and activities. Scientists and staff of NRCE were administered the oath against corruption on 25th October, 2010.

The Vigilance Awareness Week was inaugurated by lighting the ceremonial lamp by the Chief Guest Shri Balbir Singh Malik, Commissioner Hisar on 25th October, 2010. Dr R. K. Sethi, Director, CIRB Hisar and Shri Sant Singh Rewari, Social Worker were also present as the Guest-of-Honor during the function. This year's main focus of observing the awareness week was "Generation of Awareness



and Publicity Against Corruption." Director, NRCE in his message stressed on self-consciousness and coordinated efforts in eliminating the menace of corruption. He exhorted the audience to initiate this action by self initiative.

IRC-2010

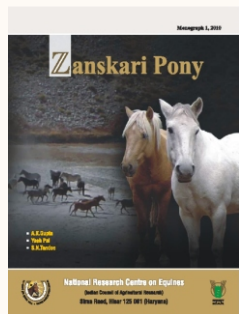
Annual IRC meeting was held on August 7, 2010 under the chairmanship of Director, NRCE. The meeting was attended by Prof. Gaya Prasad [ADG

(AH), Expert], Prof. P.K. Uppal (Expert), Prof. O.P. Dhanda (Expert), Dr R.S. Khatri (Expert) and Dr M.B. Chhabra (Expert). All the NRCE scientists presented research findings in their respective projects.

New research projects approved in the IRC

Sr. No.	Title of the proposed research project
1.	Characterization of indigenous non-descript donkeys and their evolutionary links
2.	Development of monoclonal antibodies based assays for detection of <i>Trypanosoma evansi</i> infection in equines.
3.	Cloning, expression and characterization of equine chorionic gonadotropin (eCG)
4.	Characterization of Toll-like receptor 9 and its role in CpG immuno-modulation in equines

Zanskari Pony- A monograph published



A monograph on Zanskari Pony was published highlighting some general information on origin of Zanskari ponies, their geographical distribution and population in their home tract (Zanskar valley, J&K), harsh agro-climatic conditions under

which these ponies survive, feed and fodder cover available to them during different seasons, equine breeding farms for conservation of this

breed, common equine diseases, their utilization as pack and Polo ponies by poor section of the society for their earning, etc. Beside this, basic information has also been made available on breed characteristics along with phenotypic and genotypic characterization as well as blood biochemical and hematological indices of these ponies. Need for conservation of Zanskari ponies has also been highlighted as population of true-to-breed ponies is declining rapidly.

DIVISIONAL NEWS

Equine Production

Training of donkeys for treadmill exercise

Small-sized indigenous donkeys are being used as pack as well as in carting in field. Most of the time,

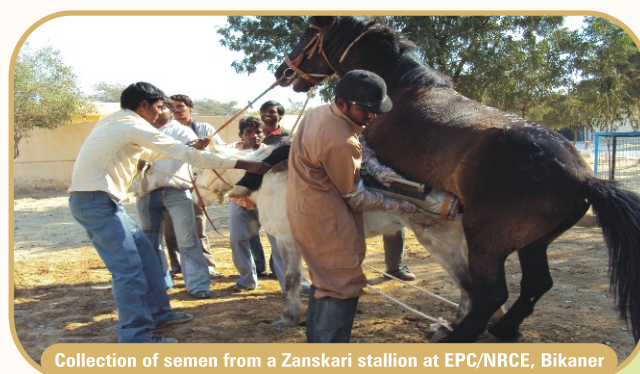


Donkey at treadmill exercise

the donkeys are overloaded and are harnessed poorly. Hence, the need was felt to study the optimum load carrying capacity of donkeys under standard conditions without adversely affecting their health status. To pursue the study, donkeys have been trained for treadmill exercise.

Zanskari semen cryopreserved

Scrotal biometry in four Zanskari stallions was recorded and seminal characteristics in three Zanskari stallions were studied. The correlation of scrotal biometry and seminal parameters were established for Zanskari stallion. The relationship



Collection of semen from a Zanskari stallion at EPC/NRCE, Bikaner

of scrotal circumference with total semen volume, total sperm concentration, initial and progressive sperm motility were found to be non-significant ($P < 5\%$) and positively correlated.

Zanskari stallion semen was collected using artificial vagina and cryopreserved successfully for the first time. A total of 118 Zanskari semen doses were cryopreserved at EPC/NRCE, Bikaner.

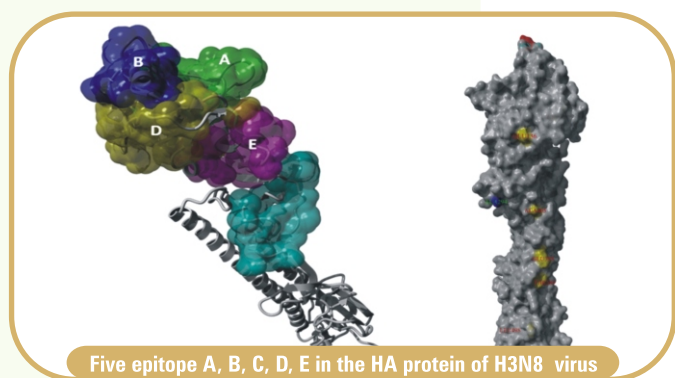
Land Reclamation and Vermi -composting at EPC/NRCE Bikaner

About four hectares land was reclaimed and used for crop production which yielded 340 qtls of dry bajra kadbi. Sewan grass fodder (60 qtls) which is generally provided to the equines as dry-fodder was also produced.

During the period under report, about 150 bags (50 kg per bags) of vermin-compost was prepared using equine dung. The compost was used for lawns, plants and agricultural farms for soil enrichment. About 200 qtls of FYM was also prepared. Efforts are on to convert all the equine dung into vermi-compost and FYM.

Equine Health

Equine Influenza HA molecule homology model prepared



Equine influenza is a pandemic virus of H3N8 sub-type and recent outbreaks by viruses of Florida clade 1 and clade 2 lineage viruses has been reported from South Africa (end of 2003), Japan, Australia (2007) and China, Mongolia, India (2007 to 2009), respectively. The homology model of HA protein of EIV (A/equine/Qinghai/1/1994/H3N8; GenBank accession no.: ACE81883) was developed. The best homology model was selected by considering the relative PHYRE

objective function value viz. per cent ID, E-value, estimated precision, etc. The homology model so obtained was refined by loop-refinement procedure and was evaluated qualitatively as per ProQ Protein quality prediction method with respect to predicted LG score and MaxSub value which was 3.998 and 0.229, respectively, indicating that predicted model is of very good quality.

Five epitope sites viz., A, B, C, D, E in the HA protein of H3N8 virus were predicted. The color coding for these five epitopes was A: green; B: blue; C: cyan; D: yellow; E: magenta.

Genetic analysis of Matrix gene of Equine Influenza virus

India faced an epizootic of equine influenza in 2008-09. The isolated viruses were typed as H3N8 which grouped with the clade 2 viruses of Florida sublineage on the basis of haemagglutinin (HA) gene sequence analysis. Haemagglutinin (HA) and neuraminidase (NA) genes encode the major surface proteins and are considered highly variable due to constant host immune pressure. The internal protein coding genes such as Matrix are relatively under low selection pressure, however, they have earlier been shown to evolve in parallel to the HA gene. Matrix gene encodes M1 and M2 proteins which are responsible for determining host range, virus assembly and budding of viral particles. The genetic analysis and selection pressure of matrix (M) gene of the Indian isolates from 2008-09 outbreaks were studied and it was found that M1 and M2 proteins shared 98.41% and 99.54% homology with other Clade 2 viruses of Asian origin for M1 and M2 amino acid (aa) sequences, respectively. There were 3

and 4 unique aa residue changes, respectively, in M1 and M2 proteins in all the Asian isolates. Phylogenetic analysis revealed clustering of Indian and Chinese isolate in a separate cluster designated by our group as ^s“Asian clade” for M gene. Indian and Chinese isolates shared homology ranging from 98.17% to 99.08% at AA level. The M gene was under negative selection pressure with estimated magnitude of pressure (ω) 0.054 and 0.581 for M1 and M2, respectively.

Re-emergence of Glanders in Uttar Pradesh

Glanders is one of the contagious notifiable zoonotic diseases of equines in India, caused by *Burkholderia mallei*. Of late, glanders has also been reported in camels. It may cause a fatal disease in humans also.

Following outbreaks of glanders during 2006-08 in different states of the country, continuous serosurveillance of equine population from Uttar Pradesh (UP) got negative result in 2008-09. However, in December 2010, it was suspected by veterinary authorities of the state from Chandpur area of Bijnor district. The disease was later confirmed by NRCE based on clinical symptoms, microbiological investigations (agent isolation and identification), molecular techniques (PCR) and serological tests (CFT and ELISA) and reported to the relevant authorities for further action for containment of the disease. Of the total 121

samples tested from UP during the period, seven equines were found to be affected with glanders, six from Bijnor and one from Ghaziabad district of UP. Five horses, one pony and one mule all involved in carriage transportation in local markets were found to be affected by the disease. Three *B. mallei* cultures were isolated from nasal swabs. To contain the disease, the follow up monitoring and surveillance programme needs to be strengthened by the state animal husbandry department, with the technical support from NRCE, in the area in view of the recurring cases of glanders from this region.

Veterinary Type Culture Centre (VTCC)

VTCC Annual Meet

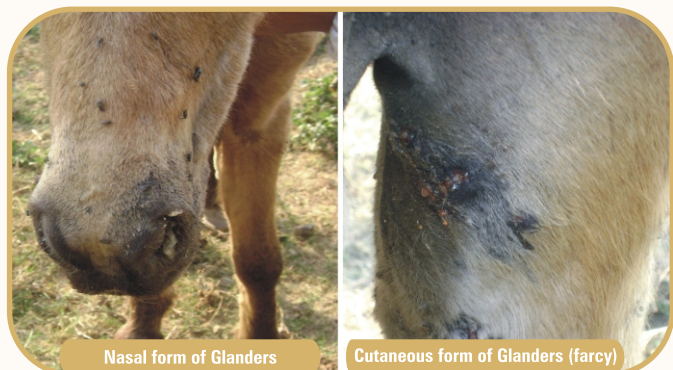
The 1st Annual Scientific Meet of Veterinary Type Culture Network Project, NRCE, Hisar was held in the Auditorium of NRCE, Hisar on 21st September,



Prof. K. M. L. Pathak addressing the VTCC annual meet

2010. The meeting was chaired by Prof. K. M. L. Pathak, Deputy Director General (Animal Sciences). Prof. Gaya Prasad, Assistant Director General (Animal Health) also attended the meeting. Director, NRCE coordinated the meet, wherein, Nodal Officers of 15 Network Units from 11 states including veterinary, dairy and rumen microbe components participated in the meeting.

Addressing the meeting, Prof. Pathak appreciated the work done so far and exhorted the VTCC team



Nasal form of Glanders

Cutaneous form of Glanders (farcy)

to work still hard towards enhancing the output in terms of repository establishment and its strengthening of the Network Units on war footings. Prof. Pathak indicated that the project should evaluate its capabilities through SWOT analysis to explore its strong areas and build capacity to overcome weaknesses.

The annual progress reports of various components of VTCC were presented and discussed. ADG, while commending the progress made by VTC Network also underlined the need to work faster, increase the funding of the centres excelling in culture collection and deposition. He also desired that the microbial repository infrastructure of VTCC Network Units should also be strengthened in the XII plan.

Equine Extension

Participation in Exhibitions

NRCE participated in IVRI Kisan Mela 2010 during November 1-3, 2010 at IVRI, Izatnagar. NRCE stall



DDG (AS) and Director IVRI visited NRCE Stall during Kisan Mela organized by IVRI, Izatnagar

displayed equine exhibition material and exhibited technologies developed at the Centre. The informative material on various aspects of equine husbandry was provided to equine owners. The NRCE was awarded third prize for its stall at IVRI Kisan Mela 2010.

NRCE stall displayed technologies developed by the Centre and equine exhibition material during AgriExpo 2010 held at Bawal, Rewari Distt. Haryana from October 4-6, 2010. Extension literature on various aspects of equine husbandry was provided to the visitors

NRCE participated in an exhibition on “Mobilizing Mass Media Support for Sharing Agro Information”

held at CIPHET, Ludhiana on October 20, 2010. NRCE stall displayed information on institute activities and technologies developed at NRCE. Exhibits and extension material on various aspects of equine husbandry was also displayed for the benefit of equine owners. Printed literature on equine health and management was provided to equine owners at the NRCE stall.

Equine Health Camps

In order to provide timely help and support to the underprivileged equine owners NRCE regularly organizes equine Health Camps and Kisan Goshthies in collaboration with state animal husbandry departments to understand the problems of equine owners and to have interaction among farmers and experts. During July to December 2010, eight equine health camps were organized at Equine Production Campus, Bikaner (8th July, 2010), Jodhpur (15th July, 2010), Hanumangarh (16th August, 2010), Rajli (28th October, 2010), Shergarh (Baran)



At Sadree, Rajasthan

(18th September, 2010), Sadri (Pali) (11th November, 2010), Voutha (Gujarat) (15th November, 2010) and



At Hanumangarh, Rajasthan

Ganganagar (22nd November, 2010). During these equine health camps, the animals were observed and treated for various ailments like colic, lameness, respiratory problems, body wounds, parasitic infestation etc. by the team of experts from NRCE. Bio-samples were also collected for carrying out disease surveillance. During kisan goshties, the equine owners discussed their problems with experts and were informed on health and production management aspects of equine husbandry.

OTHER NEWS

Dignitaries visited at NRCE, Hisar

- Mr. Manoj Kumar, Senior Technical Officer, Rajbhasha Vibhag, ICAR visited NRCE to monitor the progress of Hindi activities at NRCE on 28th August 2010. He delivered a lecture on “राजभाषा नियमों का पालन”
- Dr Utpal Tatu, Professor, Department of Biochemistry, Indian Institute of Science, Bangalore visited NRCE on 31st August 2010 and delivered lecture on “Proteomics of Infectious Diseases: Applications in Biomarker Identification, Diagnostics and Drug Development”
- Dr Sanjay Dhar, Director Research, Aesthetic and Plastic Surgery Institute, University of California, Irvine visited NRCE on 18th September 2010 and delivered a lecture on “Nerve Tissue Engineering- Bench to Bedside”
- Chinese delegation for 16th Asia Game Equine Event visited on 17th Sep, 2010
- Dr Luo Changboo, AQSIQ visited on 8th Nov, 2010.
- Dr Peter Mertens, Vector Borne Diseases Programme, Institute for Animal Health, Pirbright, UK visited on 29th Nov, 2010.
- Dr S. Ayyappan, Secretary DARE and DG, ICAR, New Delhi visited on 9th Dec, 2010
- Prof. K.M.L. Pathak, DDG (AS), ICAR, New Delhi visited on 9th Dec, 2010

Personalia

Promotions

1. Sh. Rampal, Asstt. has been promoted to the post of AAO w.e.f. 9th September, 2010.
2. Sh. Ashok Arora, Steno Gr. III has been promoted to the post of Personal Assistant w.e.f. 9th September, 2010.

Joining

- Sh. A.K. Maithani, joined this Centre as Administrative Officer (AO) on 11th November, 2010.

Superannuation

- Dr S. N. Tandon, Pr. Scientist and Incharge Equine Production Campus of NRCE at Bikaner superannuate on 31st October, 2010..

Overseas NAIP Sponsored Trainings

1. Dr Sanjay Kumar, senior scientist, attended three months (1st June 2010 to 31st August 2010) NAIP- sponsored training in the area of Bioinformatics at Bio-informatics Institute, Singapore. He investigated the molecular and cellular functions of some uncharacterized genome sequences/protein peptides of *Trypanosoma evansi* parasite as drug-target and screen library of bio-molecules as a novel therapeutics agent.
2. Dr Sanjay Barua, Senior Scientist, Veterinary Type Culture Centre (VTCC), NRCE, Hisar underwent NAIP- sponsored training in the area of Bio-security (Animal Science) in Veterinary Diagnostic Laboratory at the University of Minnesota under the supervision of Dr Sagar M. Goyal, Professor of Virology, Department of Veterinary Population Medicine, College of Veterinary Medicine, St. Paul, MN, USA from October 27, 2010 to January 24, 2011. During the course of this training, he got acquainted with the biosecurity measures to be adopted in the microbial culture collection along with an in-house practical demonstration of culture collection activities at American Type Culture Collection (ATCC) in Manassas, Virginia.

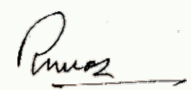


National Research Centre on Equines (NRCE) – being premier research organization in equine research – has the task of addressing the constraints faced by equine owners in health and management through focused and mission-oriented research. Our efforts during the past 25 years have concentrated on development of cost-effective technologies for diagnosis, prevention and control of major equine diseases. Characterization and conservation of indigenous equine breeds, standardization of artificial insemination using semen of Poitu donkeys and Marwari horses have been the hallmark research achievements. The continuous nation-wide sero-surveillance of

equine population is conducted by NRCE team for diseases of equines in India which has helped in timely control of equine influenza and identification and elimination of glanders affected animals.

In commemoration of International Year of Biodiversity an interactive meet on “*Conservation of Marwari and Kathiawari Horses*” was organized at Equine Production Campus, NRCE, Bikaner on September 7, 2010, wherein a strategic action plan was prepared with inputs from participants who represented various indigenous equine organizations and NGOs. Researchers at EPC/NRCE, Bikaner are engaged in studying the optimum load carrying capacity of donkeys under standard conditions without affecting their health status, in ploughing operations, and electricity generation. The Zanskari stallion semen evaluated and cryopreserved successfully for the first time, and a monograph on Zanskari Pony highlighting information on origin of Zanskari ponies, their geographical distribution and population in their home tract has been published for the benefit of stakeholders.

In order to provide timely help and support to underprivileged equine owners, NRCE started toll-free helpline number providing advisory services to equine owners at ATIC on the lines of “*Kisan Call Centre*”. Silver Jubilee year and Foundation Day was celebrated with great zeal and enthusiasm on 26th November 2010. On this Occasion, various activities including indigenous horse show, equestrian events and kisan gosthi were organized. I acknowledge and appreciate the hard work, unstinted support and cooperation received from scientific, administrative, technical and supporting staff in our collective effort to achieve excellence in mandated areas. I also compliment the sincere efforts of publication committee and other scientists who helped in bringing out this newsletter.


(R.K. Singh)



NRCE News Letter

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