



Proposed design of new building of PD\_ADMAS at Yelahanka, Bangalore



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

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# PD\_ADMAS

*News*

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Dr S Ayyappan, Secretary DARE and DG ICAR visited PD\_ADMAS, Bangalore on 1st December 2011 and discussed various activities of the Directorate and advised to adapt latest technologies in Animal Disease Monitoring and Surveillance.

## *From the Director's Desk....*

Seasons Greetings!

A New Year-2012 has begun and hope this New Year brings good health to all of us. This New Year is very important as it is landing to XII Five Year Plan. Many things were achieved and much is to be achieved. We all have started different plannings for various programmes to be implemented in the five year plan. All our goals and activities are to be focused on two missions projected by our honourable Director General viz., "Farmer FIRST and Student READY". We are overwhelmed by the advice and kind words of appreciation of our honourable Director General during his recent visit to our institute. We feel extremely happy and proud to say that our Directorate will be renamed as "National Institute of Veterinary Epidemiology and Disease Informatics (NIVEDI)". Upgradation means more responsibility! To accomplish the broadened objectives and goals, AICRP on ADMAS is being extended to 19 new centers covering the entire nation in XII plan.

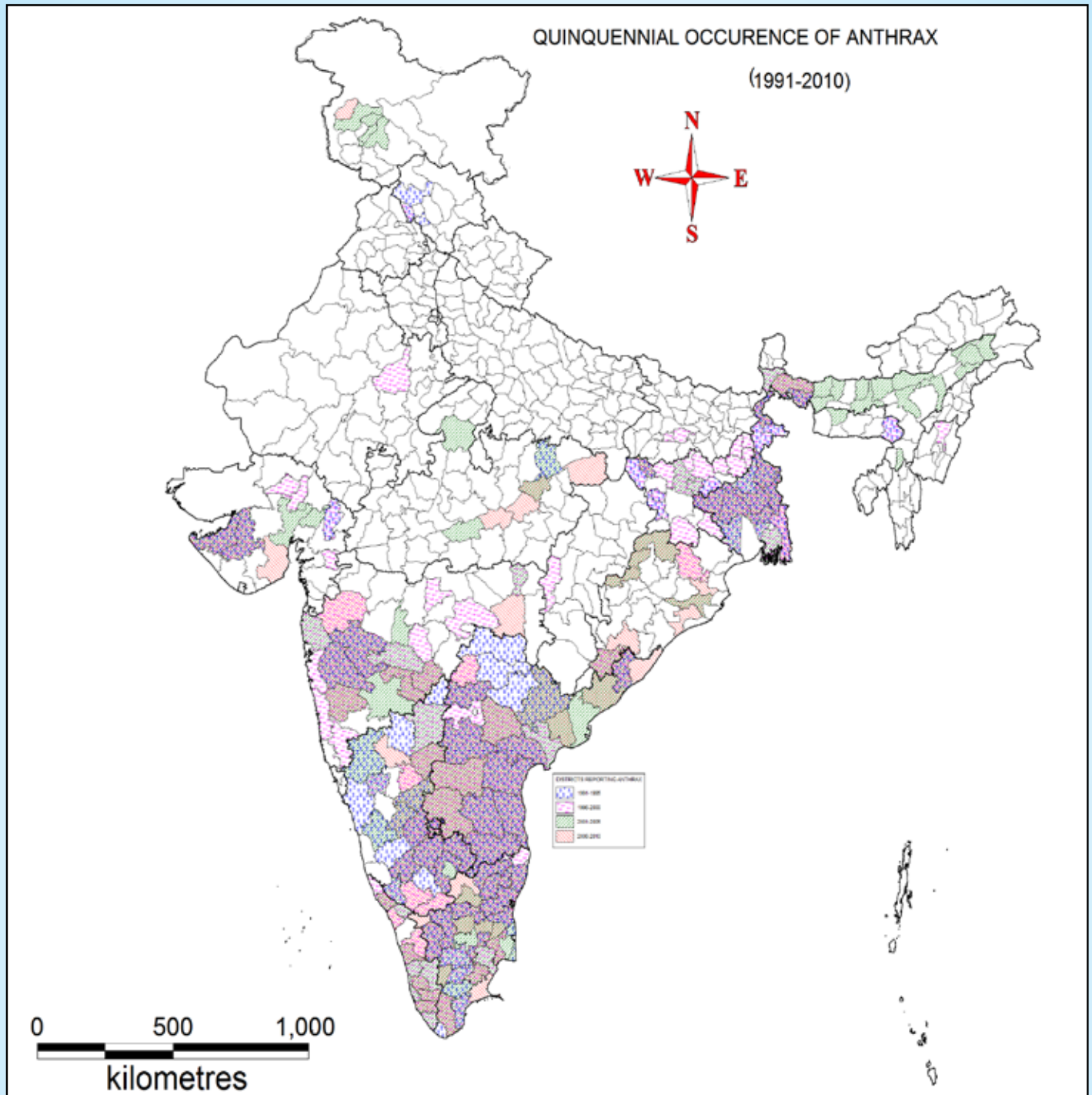
Quality data is the backbone of any database. The Directorate is maintaining the exhaustive database on livestock diseases and their profile. We are developing effective linkages with Regional disease diagnostic laboratories (RDDs) in order to make the database more effectively being analyzed and put to use through NADRES to various stakeholders viz., veterinary officers, disease diagnostic labs, State Animal Husbandry Departments,



A four day long training programme on "Introduction to Spatial Epidemiology" was organized by Food and Agriculture Organization (FAO) at PD\_ADMAS, Hebbal, Bangalore from 2-5, August, 2011 and uses of GeoDa software in Epidemiology were demonstrated.

National and International level policy makers. Recently, FAO has appreciated the endeavours of the Directorate in creation of database on National Animal Health Status and Animal Disease Surveillance. The Directorate is taking a big leap in this XII plan to predict animal diseases more precisely so as to help policy makers of the State Animal Husbandry Department to take appropriate actions in controlling the diseases.

## OCCURRENCE OF ANTHRAX IN INDIA (2001 - 2011)

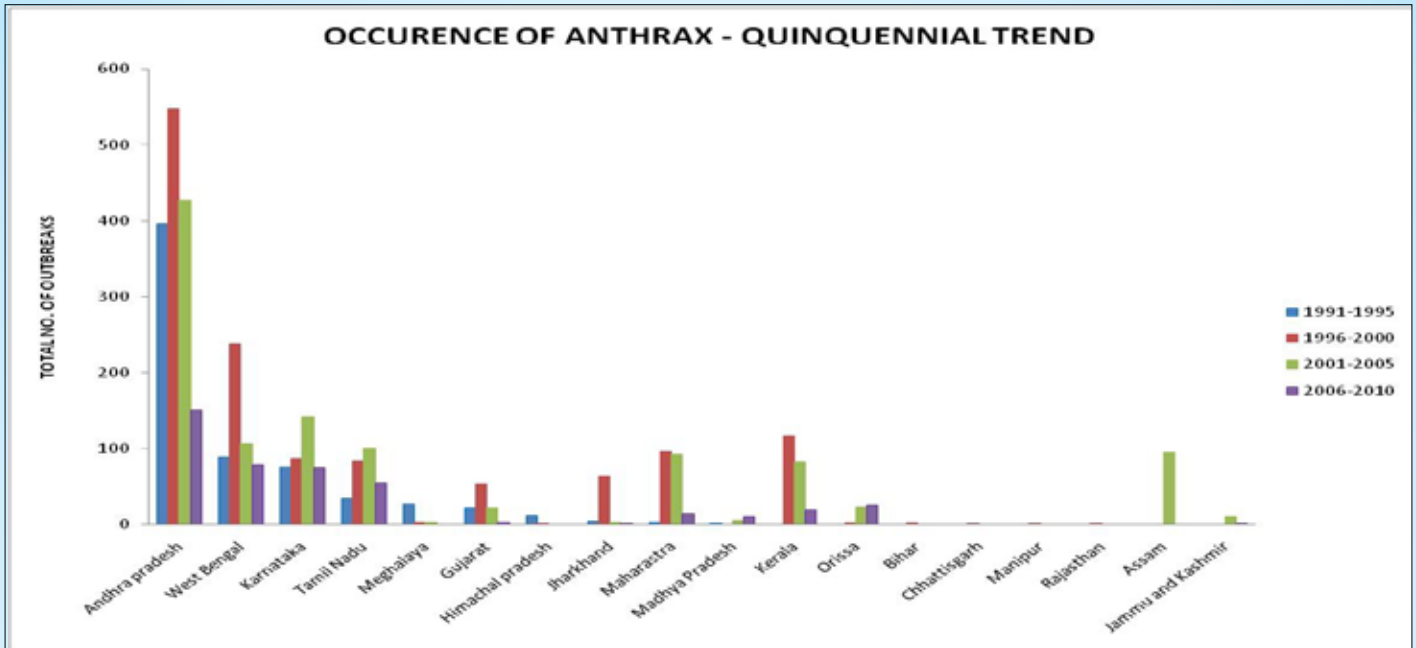


Anthrax is an infectious disease caused by *Bacillus anthracis*. Most forms of the disease are lethal and it affects both humans and animals. Based on the animal disease profile available at this Institute, the pattern of occurrence of Anthrax in the country was analyzed. The profile lacks data from Uttar Pradesh, Chhattisgarh, Sikkim, Arunachal Pradesh, Nagaland and Tripura. Based on the outbreak reports of the remaining states, the country has been divided into areas with no reports, sporadic, endemic and hyperendemic occurrence of anthrax and has been mapped at district level (above).

The anthrax surveillance system depends on the following cardinal actions

- Education of both those who will be involved in the surveillance and all who own or handle livestock, meat, hides and other animal products.
- Correct diagnosis.
- Implementation of control measures.
- Prompt reporting.

These need to be supported by appropriate laboratory diagnostic back-up.



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The anthrax surveillance system depends on the following cardinal actions (1) Education of both those who will be involved in the surveillance and all who own or handle livestock, meat, hides and other animal products. (2) Correct diagnosis. Implementation of control measures

and (3) Prompt reporting. These need to be supported by appropriate laboratory diagnostic back-up. The outbreak of anthrax is being reported from all the six zones of the country. Due to poor reporting system there are only limited numbers of records in the North zone. It may be observed that, although the disease does not have any specific seasonality, it consistently occurs during the months of July, August, September and October. Generally, these are the monsoon months across the country. The hot and humid season facilitates the germination of the spores in the environment. Hence, it is advisable to vaccinate the animals during the later half of May or June. Anthrax vaccination is to be done annually. The immunity from first-time vaccination may not be very long-lasting and is better after boosters.

### IMC meeting of the Institute



IMC Meeting was held on 7<sup>th</sup> July 2011 in the presence of ADG (AH), ICAR. Discussions were held on Institute Projects and were approved to place before RAC.

### II Research Advisory Committee meeting of the Institute



Dr R N S Gowda chaired the meeting. Dr Gaya Prasad, ADG (AH), ICAR, Dr H Rahman, Project Director, Dr K Prabhudas and Dr M Rajasekhar, former Project Directors, Dr B Pattnaik, Project Director, PD\_FMD attended the meeting

## Seroepidemiology of brucellosis in swine

Brucellosis is one of the emerging and re-emerging zoonotic diseases of the farm animals. The main pathogenic species worldwide are *B. abortus* (for bovine brucellosis), *B. melitensis* (main etiologic agent of ovine and caprine brucellosis) and *B. suis* (for swine brucellosis). *B. suis* causes infertility, abortion and birth of dead or weak piglets in sows; orchitis and infection of secondary sex organs in boars and lameness and paralysis in both sexes. In India, brucellosis in swine is routinely diagnosed by rose bengal plate test (RBPT) and standard tube agglutination test (STAT). An indirect ELISA for diagnosis of brucellosis in swine has been standardized using smooth lipopolysaccharide (sLPS) antigen from *Brucella abortus*. The diagnostic sensitivity and diagnostic specificity were found to be 95.71% and 96.14%, respectively. In the cross reactivity study, the *E. coli* (O157 H7), 17 salmonella and five *Y. enterocolitica* serotypes specific sera tested negative in the standardized assay which is an important feature in *Brucella* diagnostics.

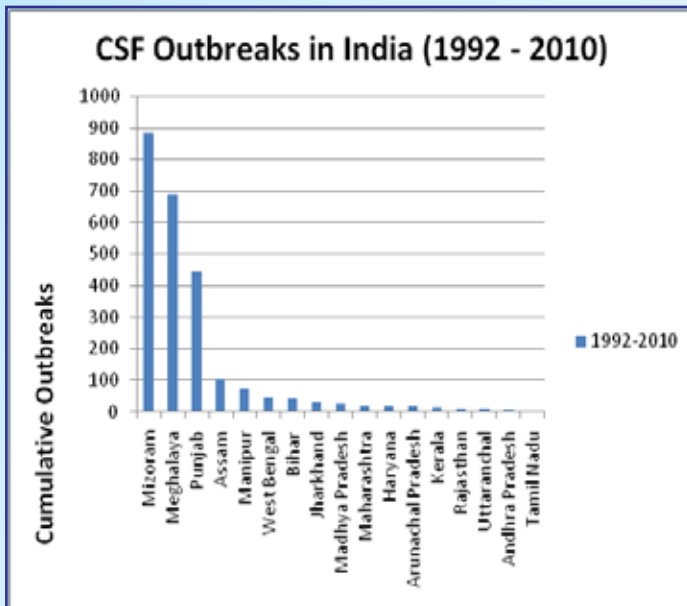
A total of 1759 sera samples from seven states tested, 270 (15.35%), 84 (4.78.63%) and 389 (22.11%) were positive for *Brucella* antibodies by RBPT, STAT and iELISA respectively. Out of three serological tests, RBPT, STAT and iELISA, the iELISA detected higher positives than the other two tests 389 (22.11 %). The farm-wise sero-prevalence when compared, high percent prevalence of disease was recorded in farm-1 of Andhra Pradesh (53%); followed by farms -1 & 2 of Karnataka (59%; 38.46%), Kerala (33%), and Punjab (29.67%), farm-3 of Karnataka. (23.52%), farm-7 of Karnataka (8.06%), farm-2 of Andhra Pradesh (5.88%) and Gujarat (2.48%) states in the order. Anti *Brucella* antibodies were not detected in sera samples of Manipur, Meghalaya and farm-8 of Karnataka and overall prevalence of brucellosis in swine population is shown in the map (Fig.).

The developed assay could be an additional screening test apart from the available routine laboratory techniques for sero-screening of brucellosis in swine.

**Fig. 1 Seroprevalence of brucellosis in pigs by iELISA**



## State-wise Classical Swine Fever (CSF) outbreak Report from 1992-2010



### Activities of Construction of Proposed New Laboratory cum Administrative Building

1. Organized Interactive Meeting with officials of NDDB for construction of administrative building and BSL II laboratory, PD\_ADMAS on 8th-9th August 2011 at Bangalore.
2. Organized Interactive Meeting with officials of NDDB for construction of administrative building and BSL II laboratory, PD\_ADMAS on 5th November 2011 at Bangalore.
3. Organized Project Implementation and Technical committee meeting for construction of administrative building and BSL II laboratory, PD\_ADMAS on 17th December 2011 at New Delhi.

### Institutional Animal Ethics Committee Meeting

IAEC meeting of PDADMAS held on 22nd October 2011 in the conference hall. The following members attended the meeting: Dr. H. Rahman, Project Director and Chairman, Dr. S. G. Ramachandra, CPCSEA nominee, Dr. Vishwanath Bhagwat, Scientist from outside the Institute, Mr. D. R. Prahallada, Non-scientific socially aware member, Dr. Diwakar Hemadri, Principal Scientist, Dr. P. P. Sengupta, Senior Scientist, Dr. P. Krishnamoorthy, Scientist and Member Secretary. Four project proposals submitted by Scientists, PD\_ADMAS were presented, discussed and approved by the committee.

### PD\_ADMAS team in the flood affected areas of Odisha



A team from PD\_ADMAS, Bangalore consisting of Dr. P. P. Sengupta, Senior Scientist and Dr. V. Balamurugan, Senior Scientist visited and collected samples from flood hit four districts of Odisha viz., Jaipur, Kendrapara, Puri and Cuttack during November 2 - 5, 2011. The samples were collected in collaboration with the Cuttack unit of AICRP on ADMAS. Five blocks of flood hit areas were selected and three blocks were chosen from each blocks. The samples were collected from 15 villages viz., Deshai, Nalara, Eradang, Pasiapada, Kanarpur, Sirei, Sohana, Kasupur, Ganeshwarapur, Subarnapur, Adda, Nachipur, Kurenga, Pradhan and Andara. A total 217 samples were collected and screened for IBR, brucellosis, leptospirosis and G.I. parasitic worms. The results were conveyed to the concerned departments for adopting an early control measures in the affected areas.

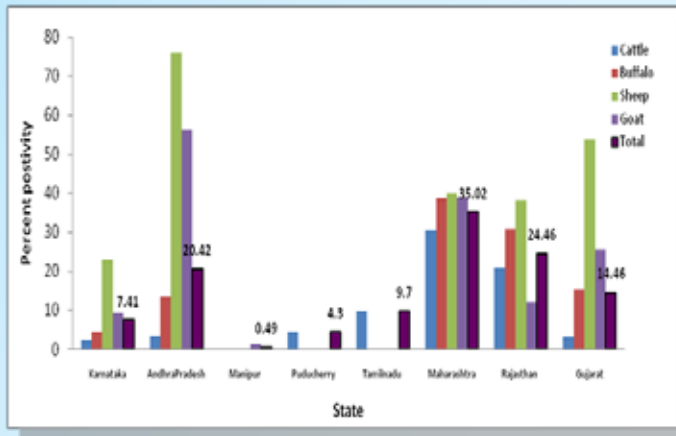
### III QRT meeting of the Institute



1) Second Meeting of III QRT of PD\_ADMAS, Bangalore was held on 20th August 2011, various issues related to molecular epidemiology, landscape epidemiology were discussed.

2) Third Meeting of III QRT of PD\_ADMAS, Bangalore was held on 23th September 2011, various issues related to molecular epidemiology, landscape epidemiology were discussed.

## Seroepidemiology of Peste des petits ruminants (PPR)



Percent positivity of PPRV antibodies in livestock species in different states

PPR is highly infectious and fatal disease of sheep and goats caused by a *paramyxovirus* in the genus *Morbillivirus*. Prevalence rate of PPR antibodies 4.58 % in cattle and Buffaloes in Southern Peninsular India was observed based on screening of 2159 serum samples. The prevalence rate of PPRV antibodies 10.52 % was observed in livestock species based on screening of random 4787 serum samples. The base line epidemiological data for PPR in some states of the country was established using the random samples from livestock (Sheep, Goats, Cattle and Buffaloes) population.

### Consortium Implementation Committee (CIC) and Consortium Advisory Committee (CAC) of NAIP on Bovine Mastitis

CIC & CAC of NAIP on Bovine Mastitis, PD\_ADMAS was held on 18th October 2011.



## Monitoring of leptospirosis in man and animals

rpoB gene based phylogenetic analysis identifies the prevalence of *Leptospira inadai* subspecies in man and animals in India. Prevalence of *Leptospira* species namely *L. borgpetersenii*; *L. interrogans*; *L. kirschneri* and *L. inadai* subspecies was observed in India based on rpoB gene based phylogenetic analysis of 300 isolates of *Leptospira*. In clinical and abortion cases of the livestock especially in cattle—most of the *Leptospira* species belong to *L. borgpetersenii* and *L. interrogans*. In non-clinical cases, most of the *Leptospira* species were *L. inadai* subgroup or subspecies.

## Celebration of Institute Foundation Day

For the first time, Institute Foundation Day was celebrated on 1st July 2011 with enthusiasm by planting tree saplings at proposed new site at Yelahanka, Bangalore. The former Project Directors greeted the staff of the institute and appreciated the efforts as “well begun”



## Project Director visits Australia

Dr H Rahman, Project Director, PD\_ADMAS, Bangalore visited CSIRO Australian Animal Health Laboratory (AAHL), Geelong, Australia during November 19 - 25, 2011 to discuss about the Biosafety measures/facilities to be practiced as GLP in India



## Model Training Course on Brucellosis

A Model Training Course (MTC) on Comprehensive approaches for the diagnosis and control of Brucellosis in the country was held from September, 5-12, 2011. Dr M. Rajasekhar, Dr H. Rahman, Dr Abdur Rahman, Dr R.N. Sreenivasgowda, Dr S. Raghavan graced the Inaugural function. 24 Veterinary Officers from all over the country participated in the training. Dr Rajeswari Shome, Senior Scientist was the Course Coordinator of the programme.



*Inauguration of MTC Programme*



*Participants with the experts of MTC Programme*



*Dr S S Patil and Dr Nagalingam, Scientists visiting Kumar Pig Farm, Hosabudanur, Mandya, Karnataka for CSF investigation and having interaction with Dr Vivekananda, Veterinary Officer.*



*Hindi Saptah was celebrated for one week from 14th September to 22nd September 2011 and various activities in Rashtra Bhasha like Essay writing, Translations, Quiz, Debate, Ashu Bhashan, and Solo Songs etc. There was a good response from the Staff of the Institute.*



*Dr Subhash Morzaria, FAO (ECTAD), Bangkok had an interacted with the Scientists of PD\_ADMAS and IVRI (Bangalore) on 14-12-2011 regarding transboundary and emerging diseases.*

## Hindi Implementation Committee meeting



## XIX Annual Review Meet AICRP on ADMAS

XIX Annual Review Meet - AICRP on ADMAS, PD\_ADMAS was held at Jaipur on 8th December, 2011 to review the activities of different Collaborating Units of AICRP on ADMAS and also to discuss the thrust areas to be taken up during 12th five year plan. The event was organised by AICRP - ADMAS, Jaipur centre.



Release of 1st issue of PD\_ADMAS News Letter by Hon. Dr. K.M.L. Pathak, DDG (AS), ICAR at XIX Annual Review meet AICRP on ADMAS at Jaipur, Rajasthan



Release of Technical Folder by Dr. K.M.L. Pathak, DDG (AS), ICAR at XIX Annual Review meet AICRP on ADMAS at Jaipur, Rajasthan

## Workshops/Conferences/ Trainings attended

Dr. Balamurugan V, Senior Scientist participated training programme on "DATA analysis using SAS" of the NAIP Consortium "Strengthening Statistical Computing for NARS" organized by Department of Agricultural Statistics, UAS, GKVK, Bangalore from 8th to 13th August, 2011

Dr. Balamurugan V, Senior Scientist and Dr. Nagalingam M, Scientist participated training on "Bovine TB diagnostics" from 4th to 8th October 2011 at Indian immunologicals Ltd, Hyderabad.

Dr. Sengupta P P, Sr. Scientist & Dr. Krishnamoorthy P, Scientist presented paper in 5th Annual Conference of Indian Academy of Tropical Parasitology on 11-13th November 2011 at Government Medical College & Hospital, Nagpur.

Dr. Nagalingam M, Scientist attended NAIP sponsored training course on 'Biosecurity in Livestock and Poultry Health' from 19.12.2011 to 01.01.2012 organized by Central University Laboratory, Centre for Animal Health Studies, TANUVAS, Chennai.

Dr. Krishnamoorthy P, Scientist presented paper and posters in 28th Annual conference of Indian Association of Veterinary Pathologists, 29-30th December 2011, Madras Veterinary College, Chennai.

## Recognitions

Dr. V.Balamurugan, Sr. Scientist, has been nominated as Sectional Editor (Veterinary virology) of Indian Journal of Virology published by Spinger during September 2011

## Joinings/Transfers/Superannuations

Shri Lakshmaiah M, UDC, NDRI, Bangalore joined as Assistant on 01-07-2011

Ms Saranya A, joined as Stenographer Grade III on 19-10-2011

Dr Govindaraj G, Scientist joined on 09-11-2011 consequent upon transfer from DGR, Junagarh

Ms Sridevi G C, joined as LDC on 11-11-2011

Ms Rekha Priyadarshini, joined as LDC on 16-11-2011

Mr. Gangadhareshwar L, joined as LDC on 21-11-2011

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