

PROVISION OF ULTRASOUND SCANNING FACILITIES IN VETERINARY INSTITUTIONS OF ANIMAL HUSBANDRY DEPARTMENT

Category Animal Husbandry

Most Significant achievement /Success story type

Enhancement of Quality of service delivery

Project

A Project titled “**Provision of Ultra Sound Scanning facilities for Cattle Breeding units and Departmental Livestock farms**” was sanctioned under RKVY 2013-14 at an outlay of Rs.8.82 Crore.



PROBLEMS IDENTIFIED

- Veterinary Diagnostic facilities available at the veterinary institutions were inadequate to provide timely and accurate diagnosis
- Initial diagnosis is more often symptomatic with more dependence on the anamnesis and clinical symptoms.
- Even where such facilities are available in the private sector, they are mostly inaccessible and unaffordable for the rural livestock farmers
- Lack of such facilities often leads to delayed diagnosis resulting in increase in loss of productive days, delayed recovery and loss of production causing indirect losses to the farmer and in some cases even animals of high

genetic merit are sold off with a consequent depletion of valuable germ plasm.

Opportunities

- Large number of dairy farmers do not have the affordability for availing such cutting-edge diagnostic services in the private sector.
- Even progressive farmers who can afford the services are constrained by logistical issues owing to the availability of fewer number of such facilities.
- The department has a wider ramification of institutions manned by qualified veterinarians, which lace the length and breadth of the state reaching even the remote villages.

The Way Out

- Creation of such diagnostic infrastructure facilities in strategic locations of the state.
- Training of qualified veterinarians to utilise the gadget effectively.
- Making the service available at the farmers' doorsteps by using the mobile Ultra Sound Scanners at village level camps conducted by the department.

Initiatives taken

A total of 98 Ultrasound Scanners were procured and supplied through Tamil Nadu Medical Services Corporation, to multi-various veterinary institutions in all the districts in Tamil Nadu. The funds for the same were sourced under National Agriculture Development Programme.

The supply of these scanners was supplemented by a "hands-on training" to 100 veterinarians, provided by the experts of Tamil Nadu Veterinary and Animal Sciences University. This cutting-edge technology has enabled the field veterinarians to arrive at an early & accurate diagnosis of many pathological and physiological conditions.

The necessary consumables such as lubricant gel, hair clippers etc., were provided along with the scanners to ensure hassle free usage.

The equipments were also covered under Annual Maintenance Contract for a period of three years for routine maintenance, providing prompt and timely service during break downs. This has minimised the down-time of the equipments due to mechanical faults.

Key Results

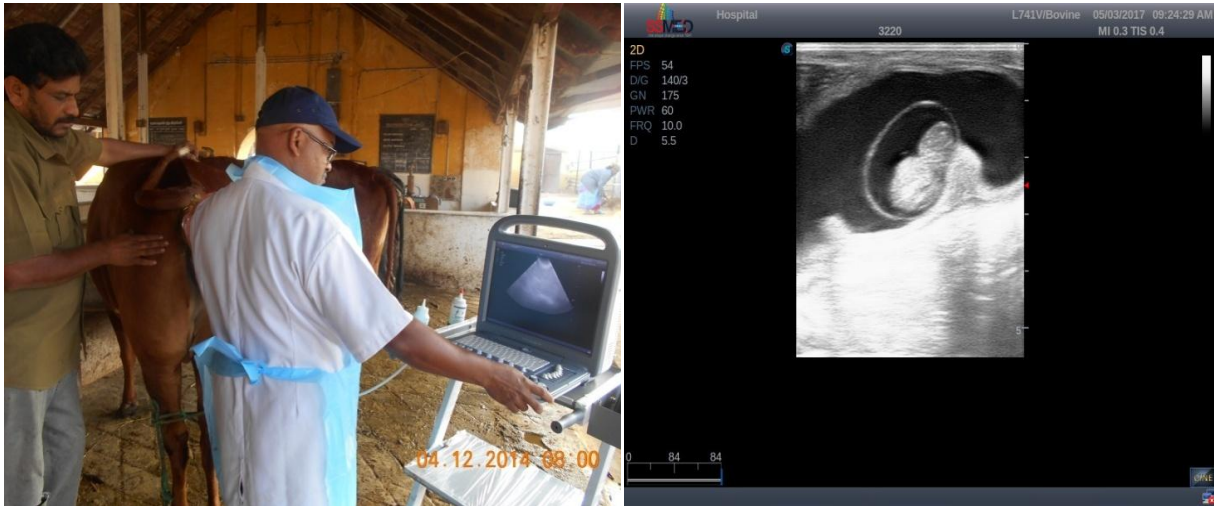
Ultra Sound Scanners have been provided to 67 veterinary institutions such as polyclinics, clinician centres, hospitals and to 11 departmental farms and 20 Cattle Breeding and Fodder Development Units.

So far, during the period from April 2014 to December 2017, Ultrasound scanning has been performed in a total of 27,162 cases of which 14,032 were large ruminants, 6,512 were small ruminants and 6,618 were pet animals.

Impact

- The veterinary diagnostic scenario of the department has undergone a paradigm shift with the introduction of this modern technology.
- The veterinarians at the field level have been empowered with an additional diagnostic tool to provide accurate and timely diagnosis.
- Many medical, surgical, gynaecological and obstetric ailments which otherwise would have taken longer time for diagnosis and resultant delay in intervention are now being diagnosed fairly early. This has enabled timely and appropriate intervention resulting in faster recovery.
- Apart from saving the animals from many life-threatening ailments the technology has also enabled the veterinarians to detect pregnancies at a very early stage. Conventionally it takes around 90 days to confirm a pregnancy by manual examination in cattle. So, an animal which is not pregnant can be provided necessary treatment only after that. When pregnancies could be confirmed as early as 28 days, corrective measures could be initiated immediately. This considerably reduces the open period enabling both the farmer and the vet to aim for "calf-an-year" from the cattle.
- As the technology assures accuracy of diagnosis, farmers are prevented from disposing the animals at throw-away prices denting their livelihood.
- The technology has been made available to the farmers closer to their homes which has boosted the confidence of farming community on the quality of veterinary services provided by the department.
- Ultrasound scanners are extensively used for diagnosis of pregnancies in cows that are used for "Embryo Transfer" programme – a "first of its kind initiative by any Government Department across the Country"- of the Tamil

Nadu Animal Husbandry Department. Early diagnosis of gravid uterus aids in successful management of pregnancy and thus this tool has immensely contributed to the success of this programme.



Early Pregnancy Diagnosis at District Livestock Farm, Hosur.

30-day Foetus

Lessons Learned

The usage of the equipment requires a mandatory higher level of training for the veterinarians. When such trained veterinarians move out on various grounds the scanners remain underutilised for such duration of time till another trained person is posted in that place. It necessitates a program for training more and more vets. Since the science of Sonology grows leaps and bounds on a faster clip, it is imperative that the trained vets are provided frequent refresher courses.

Even with 98 ultra sound scanners, only 3.5 % of the total institutions of the department could be provided with this facility. The phenomenal success of the project has greatly enhanced the awareness level of the farmers about the usefulness of such equipments, creating a tremendous demand for more such gadgets at many more institutions. The planning strategy must aim towards modernisation of veterinary service delivery.

SNIPPETS FROM THE MEDIA

1. Title of the article: Colour Doppler Ultrasound Scanner for large animals



2. Title of the article: Providing human touch to Animal care in *The Hindu*

"We are receiving a large number of referral cases for surgical intervention. Life-threatening and critical cases can be quickly attended to now since diagnosis is faster, thanks to the ultrasound scanner," says Dr. Gopinath.

Ever since ultrasound was put to use about 25 days back, 30 scans have been done free of cost. According to Dr. Vairavasamy, the diagnosis of Lucy is an example to show how veterinary healthcare has grown by leaps and bounds. "It was a complicated case of enlarged abdomen with two tumours and stagnated pus in the uterus. Since it was in a closed condition, the availability of ultrasound helped us diagnose the problem.

3. Title of the Article: Our own 'James Herriots' in *The Hindu* Madurai: September 10, 2015

Veterinary Polyclinic Madurai ".....A case of a Pomeranian was brought with abdominal pain and bleeding. "Earlier we would go by owner's version, medical history of the animal and our experience to decide upon a surgery. But now the ultrasound showed the dog with blocked urinary bladder and when we cut open, we were amazed to find 58 stones lodged inside," says the Veterinary Surgeon (Source: The Hindu Dt. SEPTEMBER 10, 2015)

4. Ultrasound Scanners' use in field:

The vernacular daily published an article mentioning that Ultrasound Scanners are being extensively used in field conditions thanks to its portable nature. The Picture depicts the use of Ultrasound scanner in a rural Veterinary Health Camp inaugurated by the District Collector at Erode District in Tamil Nadu.



A farmer's narration of his successful experience.....

A farmer whose cow with a complicated medical condition of Follicular Cyst in the ovary which has been correctly diagnosed and successfully treated resulting in pregnancy after 2 long years of futile attempts to conceive the animal recounts his experience:

b. Tamil Nadu Veterinary and Animal Sciences University - Provided technical specifications for the scanners and provided training for the veterinarians

2.Link to supporting materials

a. Article in *The Hindu*

<http://www.thehindu.com/todays-paper/tp-national/tp-tamilnadu/colour-doppler-ultrasound-scanner-for-large-animals/article6417876.ece>

b. Article in *The Hindu*

<http://www.thehindu.com/features/metroplus/society/madurais-veterinary-polyclinic-dubbed-as-the-best/article7637115.ece>

c. Article in *The Hindu*

<http://www.thehindu.com/todays-paper/tp-national/tp-tamilnadu/providing-human-touch-to-animal-care/article6208172.ece>

d. Youtube Link to Video clip

NADP-Ultra Sound Scanning to Veterinary Institutions

<https://youtu.be/8SrB6bt8HeA>

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