

**7th IVEF National Conference on
SHAPING LIVESTOCK EXTENSION ADVISORY SERVICES FOR DOUBLING FARMER'S INCOME
29 to 31 January, 2018
Indian Veterinary Extension Forum
Department of Veterinary and Animal Husbandry Extension Education, Veterinary College, Shivamogga
Karnataka Veterinary Animal and Fisheries Sciences University, Bidar**



Dr. P Athilakshmy and Dr. P Thilakar participated in the 7th National Conference on Shaping Livestock Extension Advisory Services for Doubling Farmer's Income organized at Veterinary College, Vinabanagar, Shivamogga and share their observations here.

CONTEXT

The livestock sector, which is an important component of agriculture, needs to change its strategies with regard to doubling livestock farmer's income. The livestock sector is different from crop production in various aspects, such as long production cycle of livestock when compared to crops, socio cultural link, and the majority of livestock farmers are landless and women-centered. Hence, it is high time for veterinarians, researchers, extension workers and administrators in this sector to formulate appropriate livestock extension advisory services on the subject of doubling farmer's income. In this context, the Indian Veterinary Extension Forum (IVEF) along with the Department of Veterinary and Animal Husbandry Extension Education, Veterinary College, Vinabanagar, Shivamogga, organised the 7th National Conference on 'Shaping Livestock Extension Advisory Services for Doubling Farmer's Income' from 29 to 31 January, 2018, at Veterinary College, Vinabanagar, Shivamogga. A total of 188 delegates attended the conference, of which 116 were from various veterinary institutions across India and 72 were from the Department of Animal Husbandry & Veterinary Services, Government of Karnataka.



THE SUB-THEMES

Under the larger theme of 'Shaping Livestock Extension Advisory Services (LEAS) for doubling farmer's income' the conference had the following sub-themes:

- Demand driven and market-led livestock extension advisory services;
- Policy interventions and extension approaches to enhance livestock productivity;
- Rural youth and livestock entrepreneurship development;
- Field experiences in enhancing the productivity of livestock;
- Climate resilient livestock production;
- ICT interventions in livestock development.

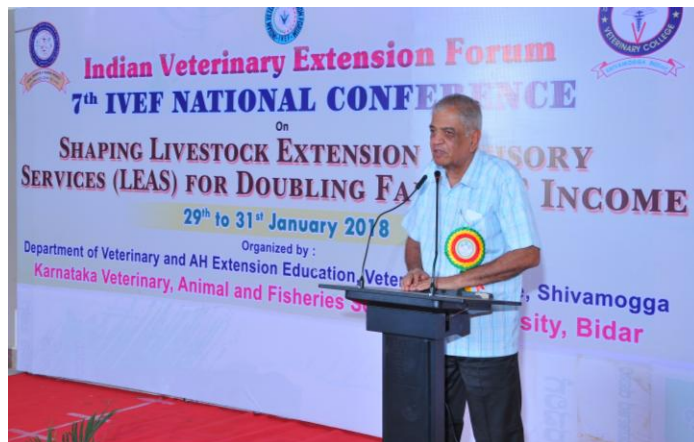
The Programme

Day 1: 29 January, 2018

The conference was inaugurated by Prof. S Honnappagol, Honourable Animal Husbandry Commissioner, Government of India. The Inaugural session was presided over by Dr. R V Prasad, VC, KVAFSU, Bidar. Dr. S Ramkumar, President-IVEF, Members, Management Board, KVAFSU-Bidar, Dr. Manjunath M T, Director, Dept. of AH&VS, GoK, Bengaluru, Dr. K C Veeranna, Dean, Veterinary College, Shivamogga, and General Secretary, IVEF, made the inaugural a grand affair with their gracious presence. The forum honored Dr. S V N Rao, Professor and Head (Retd), Department of V&AH Extension Education, River, Puducherry and Dr. B S Sudhakar Rao, Professor(Retd), C V Scott, Hyderabad with life time achievement award for their invaluable service in the field of veterinary extension education.



In his keynote address, eminent scientist Dr. Rangnekar, spoke on the conventional approach to livestock extension and focused on the need to ensure that the resource poor benefit from livestock development. He addressed the need for a paradigm shift in livestock extension in order to understand the prevailing production system, as well as to prioritize problems in livestock farming. He highlighted



that livestock plays, such as output function, input function, economic function, socio cultural function, and asset function, which need to be considered while assessing productivity and deciding on interventions. He stressed that as livestock extension is somewhat different from agricultural extension, a disruptive approach that departs from the TOT approach is called for. He suggested adoption of a knowledge-based Agricultural Innovation Systems (AIS) approach in livestock extension advisory services. AIS is

a process of 'Creating, Accessing and Using' knowledge/information from all sources/stakeholders. He stated that AIS takes a 'Holistic approach' as against the 'Reductionistic approach' of TOT, and thus improves effectiveness of extension services and research.

Technical Session I: Shaping Veterinarians for Livestock Extension Advisory Services

Lead Paper I: Exploring Extension: Some perspectives for practicing veterinarians



This presentation by Dr. S Ramkumar, Dean, RIVER and President, IVEF, shed light on decision-making behavior of veterinarians in Networked, Biotechnological, Globalised and Google (NBGG) society. He said that the extension strategy is influenced by the development stage of society within the tri axis of time, technology, and territory. He sensitized veterinarians towards performing their dual role as clinicians and livestock advisory service providers, and also sought to fit them into the dynamic demand of the NBGG society.

Lead Paper II: Livestock Extension Advisory Services (LEAS) for doubling farmer's income: Lessons from commercial poultry sector

Dr. P V K Sasidhar, Professor and Director, School of Extension and Development Studies, IGNOU, in his presentation elaborated on the strategies that need to be followed in order to double livestock farmer's income – as it is done in the commercial poultry sector. He focused on LEAS with input-output linkage, value chain development, PPP model, more adaptive research through OFTs and FLDs, effective collaboration and capacity building, and adequate policy support, as the strategies crucial to strengthening the livestock sector at the grassroots level.

Lead Paper III: Feed technologies for improving livestock production and income of farmers

The next paper, by Dr. Shivakumargowda N K, Principal Scientist, ICAR-National Institute of Animal Nutrition and Physiology, Bengaluru, was marked by its optimistic approach to usage of unconventional feeds in livestock farming. He stressed that technology development and adoption in the field of dairy nutrition will be key to achieving improved productivity. He also elaborated on the scope for refining existing feeding practices so as to make the whole exercise more economical and sustainable. He further stated that optimum use of resource and enhancing the efficiency of utilization were the main factors governing the scientific feeding of livestock.

Technical Session II: Opportunities in Doubling Farmer's Income and Challenges in Improving the Productivity of Livestock & Demand-driven and Market-led Livestock Extension Advisory Services

Lead Paper I: Importance of green fodder for improving livestock production and income of farmers

This presentation by Dr. K Giridhar from National Institute of Animal Nutrition and Physiology, Bengaluru, stressed the importance of green fodder production for sustainability and profitability in livestock farming. He shared his field experience in perennial fodder grasses, trees, and legumes

cultivation. He detailed the procedure for hay, silage and sprouts production, and also gave advice on how to manage the same for a lean period.

Lead Paper II: Challenges & opportunities in animal husbandry sector – An overview

A detailed SWOT analysis of the animal husbandry sector was made by Dr. K Satyanarayan, Professor and Head, Department of Veterinary & AH Extensions Education, Veterinary College, Bengaluru. His presentation dealt with the challenges and opportunities in the livestock sector. He stated that IFS, fodder production, value addition, cooperative approach in egg and meat sector, reduction in open days, and effective disease diagnosis and control measures as the potential means for doubling farmer's income that a veterinarian should focus on.



The lead papers were followed by 12 oral presentations by staff and postgraduate students on the following topics:

- Marketing pattern of coloured broiler birds in Karnataka;
- Livestock breeding service knowledge of MAITRIs in Chhattisgarh;
- Knowledge level of commercial dairy farmers on animal health and milking hygiene practices in Karnataka;
- Economics of Badri cattle rearing in hills of Uttarakhand;
- A study on growth performance of local goats under different housing management systems with suitable recommendation for improving productivity;
- Intensive heifer calf rearing system for doubling farmer's income -A case study in Malnad region of Karnataka;
- Community-led rural hatcheries to augment backyard poultry production in Karnataka;
- Tuberculosis in dairy cattle vis-à-vis awareness among dairy farmers- A pilot study;
- Technological interventions for enhancing farmer's income: An experience in Karnataka
- Efficiency of cattle markets in eastern dry zone of Karnataka;
- Use of cow dung cake for increasing farm productivity in dairy farming;
- Dairy husbandry information needs of farmers in different agro-climatic zones of Uttar Pradesh.

In summary, the oral presentations explained the pros and cons of different scientific technologies used at the field level. Success stories, such as the ones on intensive heifer calf rearing system and housing management in goats, provided meaningful information for veterinarians who can, by replicating such models, help in doubling a farmer's income. They also shared their experience as well as the constraints faced by farmers in adopting new technologies, which provoked field veterinarians to assess and refine technologies at the field level.

Day 2: 30 January, 2018

Young Scientist Award presentation

The 7th National conference of IVEF was a high point for young budding extension researchers, as for the first time a separate session for Young Scientist Award presentation was held.



Seven oral presentations were made during this session on the following topics:

- Livestock extension service delivery by State Department of Animal Husbandry, Karnataka: A SWOT analysis;
- A comparative study of bacterial load under individual and community milking system in Kolar district of Karnataka;
- An exploration of usefulness of instructional learning methods in career selection of veterinary graduates;
- Marketing pattern of coloured broiler birds in Karnataka;
- Livestock health management by displaced Tribal women farmers in hill districts of Assam;
- Perceived effectiveness of dairy service delivery systems in Namakkal district of Tamilnadu;
- Rearing of day-old Swarnadhara chicks by farmers in Karaikal – Evidence from an action research project.

The Young Scientist Award by IVEF will definitely motivate young veterinarians in the extension field to carry out applied research in future. The first ever Young Scientist Awards were conferred on Dr. S Karthikeyan and Dr. P Athilakshmy at this conference.

Technical Session III: Policy Interventions and Extension Approaches to Enhance Livestock Productivity and Rural Youth and Livestock Entrepreneurship Development

Lead Paper I: Sustaining the livelihood of rural weaker sections by enhancing the productivity of dairy animals through extension approaches – A field experience

Dr. N Narmatha, Professor & Head, Department of Veterinary & AH Extension Education, VCRI, Namakkal, dealt with her field experience in increasing productivity of dairy animals through different extension approaches. She stressed that participatory approach is one of the best extension approaches to increase the rate of adoption of technologies for enhancing productivity.

Lead Paper II: Need to strengthen veterinary extension mechanism for enhancing the livelihood of livestock dependent farmers

This presentation from Dr. Pitambar Swain, Professor & Head, Department of Veterinary & AH Extension Education, detailed the present status of veterinary extension education, veterinary extension research and services. He enlisted the steps to be taken to strengthen teaching in veterinary extension, national extension policy formulation, veterinary research, and exploring employment opportunities for extension professionals. He insisted that each Department of V&AH extension education should adopt 3-4 villages and convert them into model villages.



Scientists and research scholars from different institutes presented 12 oral presentations in this session. The session covered the following research topics:

- Constraints in improving livestock entrepreneurship among rural youth of Jharkhand;
- Intensive cultivation of agasse (*sesbania grandiflora*) for sustainable sheep farming - action oriented research;
- Gender analysis in livestock production in Karnataka - an exploratory study;
- Milk handling and milk disposal pattern among peri-urban buffalo farmers;
- *Yuva Chetana* – An innovative extension approach through youth mobilization;
- Management of subclinical mastitis – A pilot study through participatory research in micro-watershed areas of Davanagere district;
- Animal healthcare and management practices followed by dairy farmers in Nanded district of Maharashtra;
- Prioritizing livestock policy, Extension and Advisory Services for doubling farmer's income: Veterinarians perceptions;
- Constraints perceived by dairy farmers and officials in implementing government schemes;
- Indigenous cattle: the guardians of resource poor farmers in rural livelihood;
- Strategies for drought proofing dry land livestock farming;
- Entrepreneurial avenues in chaffing & silage making of fodder.

The Chair of this session appreciated the action research on intensive cultivation of agasse and the concept of *yuva chetana* towards youth mobilization as both the concepts show promise with regard to

doubling of a farmer's income. The suggestions from field veterinarians on different technologies and approaches presented in this session were quite meritorious.

Technical Session IV: Field Experiences in Enhancing the Productivity of Livestock

Lead Paper: Field experiences of implementing Sujala III project in Karnataka

In his presentation, Dr. K C Veeranna, Dean, Veterinary College, Shivamogga, enlightened the audience on the success as well as the constraints of the Karnataka watershed development (KWDP-II & Sujala-III) project implemented in seven selected districts of Karnataka. He stated that integrated extension approaches, viz., training, demonstration, OFT, farm literature etc., helped the project teams in improving the knowledge level of farmers and adoption of scientific practices. He also stressed the promotion of region-specific and compatible scientific practices based on field experience. He urged veterinarians to move towards horizontal diffusion of livestock production practices among the farming community on a large scale.

In this, the fourth technical session, five oral presentations were delivered by research scholars from various institutions on the following topics:

- Application of 'Livestock Innovation System' concept at field conditions: Experiences of KWDP-Sujala-III Project;
- Extent of adoption of buffalo husbandry practices in milk shed areas of Andhra Pradesh;
- An exploratory study on days open in crossbred cattle in Bangalore Rural District;
- Entrepreneurial behaviour study of dairy farmers in Ahmednagar district of Maharashtra;
- Block the bite by mosquito net: Farmer's innovation in protecting the livestock from mosquito bites.

In summary, presentations highlighted the field experience of veterinarians in dissemination of technologies towards doubling a farmer's income. Livestock innovation system concept under field conditions attracted audience interest, leading to a healthy discussion with field veterinarians.

Technical Session V: Climate Resilient Livestock Production and ICT Interventions in Livestock Development

Lead Paper: Impact acceleration with digital technologies: strategic ideas for livestock advisory services

The lead paper presented by Dr. G R K Sharma, Professor & Head, Dept. of Veterinary & AH Extension Education, College of Veterinary Science, SVVU, Tirupati, forecasted the role of digital technologies in doubling farmers' income. He insisted on building frontline mobile extension programmes, such as mobile interface, social media, ready-to-use scripts and knowledge sharing, big data platforms, market and input supply.

As this session was on climate resilient livestock production and ICT, it attracted youngsters who presented 12 research abstracts on the following topics:

- Climate resilient livestock production strategies for doubling the farmer's income;
- Climate resilient small ruminant production in drylands;

- How we use social media to supplement Livestock Advisory Services: An experimental study in Himachal Pradesh, India;
- ICT penetration level among dairy co-operative farmers of Valsad district in South Gujarat;
- Evaluation of bio-security measures in commercial broiler poultry farms in South Gujarat region;
- Develop and evaluate use of mobile application for cattle farming: A new generation technology transfer for sustainable dairy production;
- Adoption of climate-smart practices by smallholder cattle farmers in central dry zone of Karnataka;
- Utilization of ICT tools for dairy management practices by cattle farmers;
- Livestock resilience practices in hill districts of Assam;
- Information sources utilization and extension agency contact behaviour of self-help group dairy farm women in Wayanad district of Kerala;
- Perception and adaptation of practices by livestock farmers towards climate change;
- Use of information and communication tools by livestock farmers.

The assembly appreciated the efforts of youngsters in disseminating timely information to the farming community through ICTs; and it also accepted the need for extension approaches towards climate-resilient livestock practices. Presentations demonstrated that ICTs will play a crucial role in doubling a farmer's income in the digital era.

Session VI: Poster Presentation



Any conference organized by a veterinary extension department cannot be satisfactory without a poster session. Though the posters are intended to attract the attention of passersby, scientific posters not only attract the audience but also convey valuable extension approaches in doubling farmer's income. Totally, 10 posters on various topics were displayed in this session. The scientific poster on "Enhancing the goat farmer's income through intensification" bagged the best poster award for this session.

OUR IMPRESSIONS

The conference provided a platform for young extension researchers to showcase their talents and also offered opportunities for discussions with eminent extension scientists from various institutions. Upcoming researchers got exposed to newer technologies, especially in livestock nutrition management, which is one of the pillars of animal husbandry. Scientists and field veterinarians from different states shared their success and failure experiences with extension approaches at the field level, which acted as an eye opener for the youngsters who are planning to set up extension activities in their localities. In a nutshell, the conference helped participants to not only update their knowledge on LEAS but also motivated them to develop region-specific, need-based extension models for different livestock systems.

The conference was meticulously planned and executed by the organizing committee, which achieved its goal efficiently. Thus, the 7th national conference was a landmark in the history of IVEF—it honored

eminent senior scientists with lifetime achievement awards, as well as motivated budding scientist with young scientist awards. The highlight of this conference was that it provided a platform to interact with field veterinarians, which is especially necessary for extension scientists while framing extension approaches for doubling farmer's income. The conference not only revealed the success of extension approaches but it also dealt with failures and constraints of certain extension approaches indifferent regions. The conference generated a SWOT analysis of extension strategies for doubling a farmer's income. In-depth discussion on opportunities in livestock farming, policy formulations, climate resilient agriculture and cyber extension threw light on shaping livestock extension advisory services vis-à-vis doubling farmers' income. The hospitality provided and the field visit arranged to Sakrebailu elephant camp and lion safari made the conference a memorable event for all the 188 delegates.

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