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ORIGINAL ARTICLE

"A ROLE OF INFORMATION TECHNOLOGY IN ANIMAL HEALTH CARE: AN INDIAN SCENARIO"

A. B. PATIL AND R. V. KULKARNI

Assistant Professor
V. P. Institute of Management Studies & Research, Sangli, Maharashtra, India.
Professor & Head
Shahu Institute of Business Education & Research (SIBER), Kolhapur, Maharashtra, India .

Abstract:

Livestock wealth is very precious for a developing country like India. In India, animal husbandry is no longer a subsidiary to agriculture or a backyard vocation. Animal husbandry has metamorphosed into an industry and the latest reports suggest that the contribution of animal husbandry sector to the GDP of the nation is substantially higher despite the meager input. The main purpose of this article is to study an Indian scenario of the role of information technology through various systems. Definitely such systems are very important to identify diseases affecting cattle (and there by the livelihood of the poor), to provide appropriate dissemination methods to deliver information on these diseases to the cattle owners and to evaluate these methods. The various systems and their impact on the knowledge of cattle owners have been studied

KEYWORDS:

Technology , Animal Health , Indian Scenario , Livestock wealth .

INTRODUCTION

Cattle being an (the) asset for the cattle owners, any disease or condition that affects its health has its bearing on the livelihoods of these families. The improvement in the health of the cattle goes a long way in exploiting their production potential helping cattle owners in coming out of the health care issues. Similarly animal husbandry offers a better scope for marginal farmers whose income from agriculture is dwindling fast due to vagaries of monsoon, fragmentation of landholdings, pest problems, poor pricing etc. Though the growth of livestock industry is very promising, in order to make India a global leader in animal husbandry, it is imperative to integrate it with developments in other fields. The developments in Information Technology over the past few decades are tremendous and offer great potential in improving animal health through various measures like effective disease forecasting, rapid and accurate disease diagnosis, modern therapeutic measures etc. Knowledge based system has a pivotal role in addressing the same issues which requires better understanding and application. Lack of information on animal health practices (ignorance, one of the prime constraints of development) ultimately results in production losses through morbidity and sometimes mortality - all resulting in economic losses to the livestock owners. The cattle owners are apprehensive even to approach centres of knowledge for want of confidence and awareness. The information systems of the cattle owners are to be realistically understood to address the priorities of information on animal health knowledge. Followings are the different systems designed and developed especially in animal health care.

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NADRES National Animal Disease Referral Expert System – India

A pilot National Animal Disease Referral Expert System (NADRES) has been launched for GIS mapping of certain diseases, including FMD, PPR, bluetongue, anthrax, and so on. NADRES envisages countrywide digital input of disease data from the field in the near future. Passive surveillance systems for most animal diseases are already in place in SAARC countries. Afghanistan, Bhutan, India, Nepal and Sri Lanka submit regular TADs outbreak data to OIE, while Bangladesh and Pakistan submit the evidence of disease presence in their country. TADs, including FMD, sheep and goat pox, PPR and Newcastle disease, are endemic in most mainland SAARC countries (Afghanistan, Bangladesh, Bhutan, India, Nepal and Pakistan).

The Indian Veterinary Research Institute, Izatnagar

This is the premier and one of the oldest institutions in the field of veterinary and animal sciences. The institute, through its significant contributions, has created a niche in R&D on animal health and production, generation of technology, patents and their commercialization. The institute's valuable and significant contributions in the areas of livestock health protection, productivity enhancement, and products technology has played a pivotal role in ushering white revolution, which led the country to attain number one position in milk production in the world.

Dissemination of Animal Health Knowledge for Development of Landless Dairy Cattle Owners

The main purpose of the study was to identify the important diseases affecting cattle, design appropriate dissemination methods to deliver information on these diseases to the cattle owners and to evaluate these methods. The Project also studied the impact of these methods on the knowledge change of the peri-urban landless cattle owners. The data required for the study is collected from 23 periurban regions of Pondicherry.

The Automatic Milk Collection System

This system has been developed by Shree Kamdhenu Electronics Pvt.Ltd. Gujrat and it provides several advantages over the traditional manual method which was time taking and due to that the milk got spoiled. The Automatic Milk Collection System speeds up the entire process, thereby reducing the spoilage of milk. Waiting time for the farmers decreases from 45 to 10 minutes. Automation of the measurements eliminates the potential for milk purchasers to misrepresent the quality of the milk and cheat farmers out of a fair price. The automated system is more transparent and minimizes the role of the collection agent, reducing the likelihood of mistakes or fraud. Far from just having economic consequences, automation gives freedom to the farmers from the burden of having to fear cheating or corruption in their daily business dealings. Physical transparency and simplicity of the process are the keys to the success of such an endeavor.

Rajiv Gandhi College of Veterinary and Animal Services

It has developed the touch screen kiosk with need based information on cattle health, derived through participatory meetings with the stakeholders aimed at the direct use of largely illiterate and poor livestock owners. As one of the important strategies for reducing information poverty, information kiosk was designed as a tool to enhance the farmers' information system through appropriately designed content and methods of extension programmes that meet the expressed needs and objectives. This was used as one of the extension delivery methods to reach these marginalized groups, under a research project supported by the DFID Animal Health Programme, UK and in collaboration with the University of Reading, United Kingdom.

'National Bio-Resource Development Board (NBDB)'

In India, the Department of Biotechnology (DBT), under the Ministry of Science and Technology it has been set up under the Department, in order to decide the broad policy framework for effective application of biotechnological and related scientific approaches for research and development as well as sustainable utilization of bio resources, especially for development of new products and processes. The Board seeks to develop a scientific plan of action for contributing to the economic prosperity of the nation

through accelerated research and development using the modern tools of biosciences. A National Steering Committee has been constituted to support the activities of the board. In its first meeting held in January 2000, NBDB has identified three priority areas, such as:- (i) preparation of digitised inventories of plant, animal, microbial, and marine resources; (ii) R&D projects, programme support, establishment of centres of excellence, training activities and demonstrations, for the development of bioresources for special areas such as north-eastern region, Himalayan region, coastal and island ecosystems, desert region, Indo-Gangetic Plain and Peninsular India; and (iii) knowledge empowerment and human resource development.
'National Biotechnology Development Strategy'

As an overall policy framework of Department of Biotechnology (DBT) in order to boost the biotech industry, it takes stock of what has been accomplished and provides a set up for future, within which strategies and specific actions need to be taken to promote the sector. The main objectives of this policy framework are to:- (i) set out the direction for strengthening India's academic and industrial biotech research capabilities; (ii) work with business houses, Government and academia to move biotechnology from research to commercialisation; (iii) foster India's overall industrial development; (iv) inform people about the science, applications, benefits and issues of biotechnology; (v) enhance the teaching and workforce training capabilities for the growth of biotech;

CONCLUSION

It The information technology played an important role in information and knowledge dissemination in the last decade. The usage of IT to transfer information and knowledge in the animal health care domain. It is observed from the above reviews that none of the researchers working in Authors are intending to make an attempt to develop expert system for knowledge assimilation animal health car which help in detecting diseases and control.

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