

Information sources for Indian livestock farmers

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Abstract

Livestock sector is an important part of agriculture in India and contributes significantly to the economy. It is a source of food, employment and income for a vast majority involved in agriculture and its allied activities. However the livestock production systems in India rely heavily on traditional practices. The lack of knowledge regarding scientific practices is a major constraint to improve the productivity of farm animals. Although there are various channels dedicated to the spread of information, the effectivity and timely availability of information is a major concern. The current article focusses on the availability of various sources of information to the Indian livestock farmers to obtain timely and vital information regarding animal husbandry practices.

Key words: Information; livestock; farmers; India.

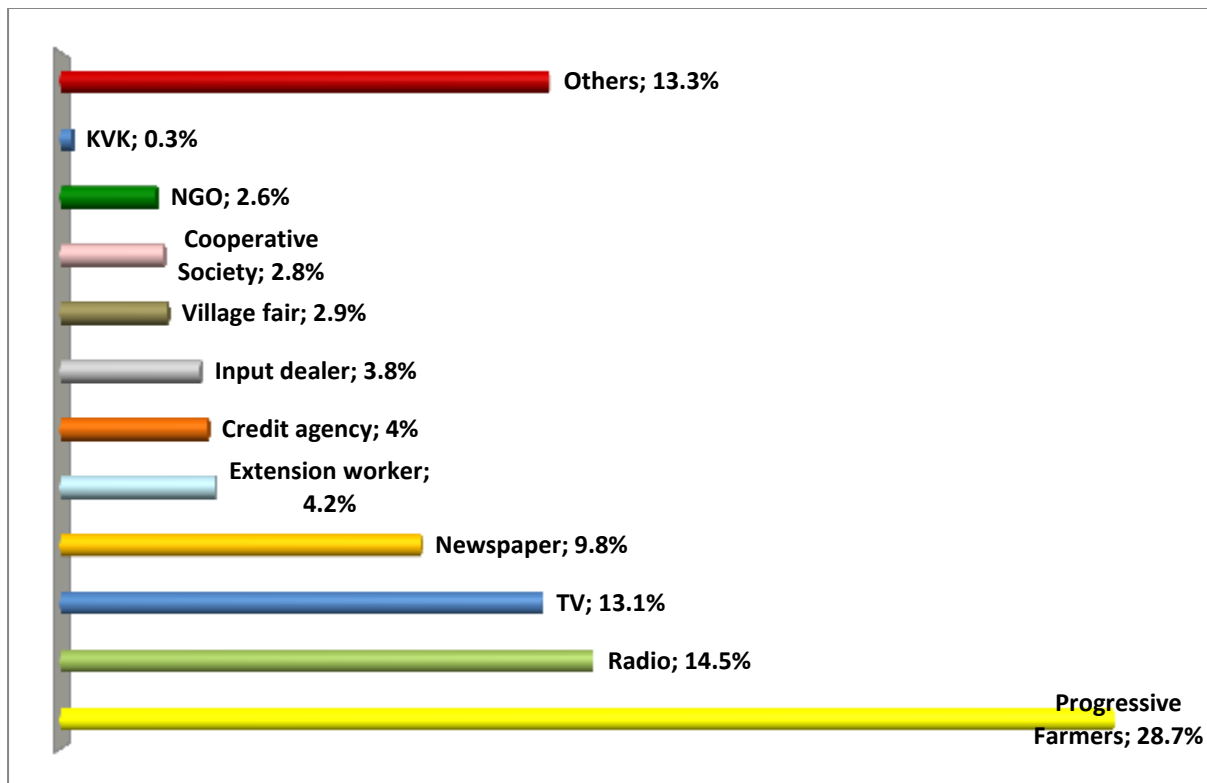
Introduction

Livestock sector is an integral part of the agricultural system in India and contributes significantly to the GDP (4.11% in 2012-13). It ensures food and nutritional security on one hand and provides income and employment opportunities on the other (Ravikumar *et al* 2006, Borah and Halim 2014). The livestock sector is expected to spur the growth of agricultural sector over the coming decade. However, low productivity of animals owing to low knowledge level of the owners remains an unresolved issue and a major challenge for the future. Agricultural knowledge and related information is the basic criterion for increased productivity and development in India as majority of the population is involved in agriculture (Das, 2012).

Information Sources

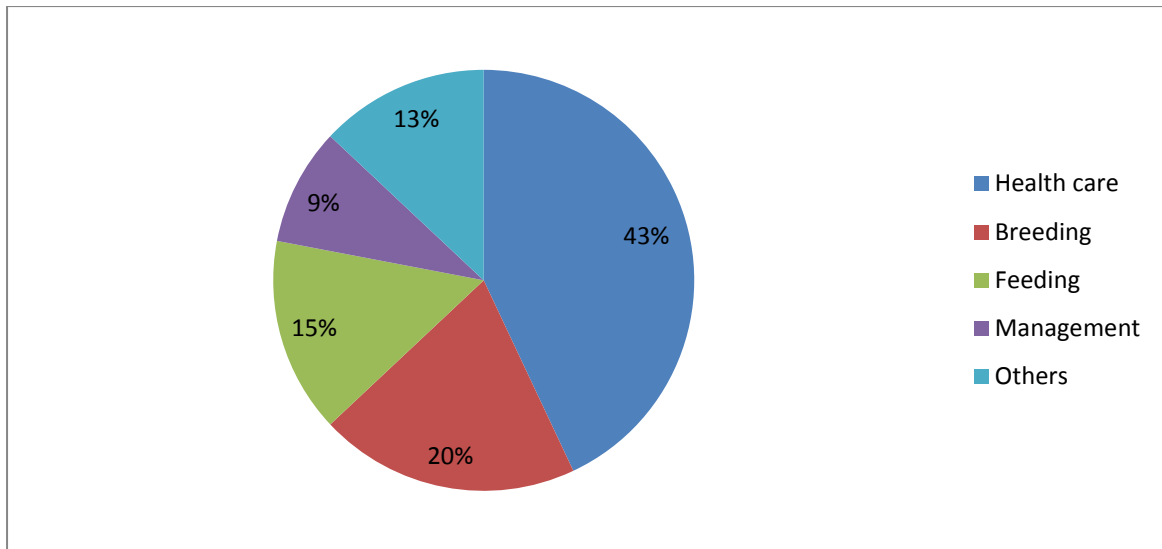
Balit *et al* (1996) were of the opinion that adequate access to knowledge and information is the least expensive input to improve rural agricultural development. The main purpose of animal husbandry information sources is to reach farmers who cannot be contacted personally by extension workers, in the shortest possible time. Location of the audience group and availability of time are the deciding factors for choosing information sources (Chauhan and Kansal 2014). Traditionally, the potential sources of information for farmers on various aspects of production marketing and finance include media, government extension services, consultants and farm service firms, traders, input dealers, other farmers and relatives (Mittal and Kumar 2000, NSSO 2005, Sarvanan 2011). The different information sources accessed by livestock farmers in India are given in Fig 1.

Fig. 1: Information sources accessed by livestock farmers (%) - (NSSO, 2005)



Importance of Information to Farmers

It is estimated that 40% of farmer households access information on agricultural techniques and inputs and only about 5% of farm households in India access information on livestock (NSS 2005, National livestock policy 2013; Fig 2). Animal husbandry practices in India are mostly based on traditional knowledge (Mishra *et al* 2006). However, the increasing demand for animal products, complex production technologies, market liberalization, financial analysis and globalization and consumer concerns about food safety have necessitated the increased flow of information to the producers (Verbeke 2001, Adhiguru *et al* 2009). Kemp has described information as the fifth need of man after air, water, food and shelter (Bachhav, 2012).

Fig. 2: Type of information accessed by livestock farmers-(NSSO, 2005)

Factors Affecting Information Demand and Use

Pandiselvi and Lakshmi (2015) observed that the modern society is heading towards attaining the status of information society. Jones et al (1989) reported that demand of information by farmers is affected by farm size, employment off the farm and type of farm enterprise. Timely and relevant information on weather trend, best farming practices and market can help to improve the decision making capability of farmers (Bachhav, 2012). Gloy et al (2000) reported that farmers producing a larger number of products are likely to have a positive attitude towards a variety of information sources. Although farmers may have a number of information sources and channels available to them, they pursue only a few (Chatman 1983, Aboyade 1987, Gunawardana and Sharma 2006). The use of information by a user is defined by demand of information and disposition of the information channel (Lee 1996). Information sources must be reliable, credible and user-friendly (Das 2012).

Information Sources Available to Farmers

1. Public Sector

Although most of extension work is carried out by public sector agencies (Anderson and Feder 2004, Ravikumar and Mahesh 2011), centralised extension services have rarely made transmission of information on livestock production a priority in developing countries (Morton and Matthewman 1996). State Departments allocate meager funds varying between 0.3% to 9% of their total budget for various extension activities including publication of literatures in local languages, conducting training programme, organizing demonstrations, health camps/ melas/ fairs, exhibitions and training (Chander and Rathod 2013).

Aina (2007) opined that farmers would be benefitted to a greater extent if information centres were located in rural areas supported with complete information and communication gadgets. The traditional print and library based methods face constraints in delivering agriculture based information to farmers who are located far away from formal sources of information, e.g. extension stations (Van and Fortier, 2000).

2. Mass Media

Tyagi and Sohal (1984) reported that mass media has a positive influence on increasing knowledge of dairy innovations particularly among urban communities. Mass media can be printed, spoken, visual or a combination of the three. Radio, television, cinema and newspapers have a huge audience base with very low cost of contact per person reached. Mass media which comprises electronic as well as print media plays a very important role in the spread of new agricultural technologies throughout the world. It is estimated that there are around 81 million homes with television sets in India. Out of these, 48% are in the rural areas (Ali 2011a).

Television

Television is an important source of information related to the agriculture sector. Doordarshan, the national broadcaster has a long running tv programme "KrishiDarshan" which covers various aspects of agriculture and animal husbandry. Doordarshan Jalandhar has a telecast programme called "Kheti Khabran Atte Mandian De Bhaa" dedicated to dissemination of information regarding agriculture and animal husbandry. DD

Kisan, a 24 hour television channel was launched in May 2015 dedicated to agriculture and allied sectors. The PJTS agricultural university of Telangana has launched a telecast programme called Rythumitra/ Ritymytra in association with State Department of Agriculture and Teja Channel consisting of programmes on agriculture, horticulture and animal sciences.

Radio All India Radio (AIR)

Radio is one of the most popular and widely used media to obtain information regarding agriculture and its allied sciences. As a source of information and entertainment, radio has a deep penetration among rural households. It has been estimated that there are around 110 million radio receivers in India out of which over 60% are in the rural areas (Ali 2011a). AIR is broadcasting “Kisanvani” programme from over 90 Local Radio Stations focussing on various issues regarding agriculture, animal husbandry, poultry farming, and fisheries. The programme also covers information regarding employment schemes, training and loan facilities. The kisanvani programme is broadcast in all the major languages in the area of its coverage. CCS Haryana Agricultural University is running a community radio station which broadcasts programmes on Agriculture, Veterinary Sciences and Animal Husbandry, Farm Women and Agricultural Engineering related programmes.

Newspapers and Magazines

The purpose of agricultural journalism is to carry relevant information to the farmers and at the same time seek feedback. (Hanumanaikar et al., 2011) Stefano (2005) found that farmers can access information in print media by reading or through functionally literate members in their families and neighbourhood (when the farmers are illiterate)

Newspapers are considered important for relaying farm information to millions of farmers distributed across the country. In the past, newspapers have played an important part in the development of agriculture and in the wake of increasing level of literacy, the newspapers hold great potential as a source for dissemination of farm information (Lahiri and Mukhopadhyay 2011). Newspaper articles provide general information on livestock farming in the form of news, advertisements, marketing, process guides, views, reports, success stories, featured articles, editorials etc.

India Year book 2005 reported that in 2005, maximum number of newspapers published were in Hindi followed by English. Sadaqath (2005) reported that there are 561 farm magazines published in India. The total circulation of agricultural publications stands at about 8,86,000.

State Departments of Animal Husbandry, in various states publish periodicals for the benefit of livestock farmers. Other agencies which publish popular magazines include State Veterinary Universities, Progressive Farmers’ Associations and private publishers. “*Indian Farming*” published by ICAR covers various aspects of agriculture and animal husbandry, poultry and fish farming.

3. ICT

Although a greater part of the knowledge of the farmers is based on tradition, but in recent time’s farmers have adopted modern means of farming. As such they are looking for more information and modern technology to increase their produce (Maningas *et al* 2005). The term refers to the use of electronic and computer based technologies that are used to access information in electronic format (Angello and Wema, 2010). The use of ICT can tremendously benefit the agricultural sector, especially by bringing changes to the rural poor in backward areas (Patel *et al.*, 2014). Kapange (2002) advocated the use of ICT for the purpose of communication and for agriculture and rural development. ICT helps the users to make significantly better quality decisions as compared to non-users (Ali 2011b). The use of modern ICT based services; especially internet and mobile have provided an opportunity to reinforce the traditional extension services and information dissemination (Mittal and Mehar 2013).

Mobile phones

Mobile enabled information services are a medium to overturn the information imbalance with a potential to overcome a major constraint to the growth of agricultural productivity in India. The increasing penetration of mobile telephony across the farming communities has a huge potential to impact the rural productivity in the future (Mittal et al 2010). Quality, timeliness and trustworthiness of information are the important criteria to meet the needs and expectations of the farmers (Mittal and Tripathi 2009) as the penetration of mobile services continue to increase across the farming communities with a potential to improve farm productivity and increase rural income (Mittal et al 2010). It was further reported that the use of mobile telephony is hampered by infrastructural issues. Increased public and private investments can bridge the infrastructural gaps. A variety of services are available through mobile phones for taking information to the livestock owners. Krishi Darshan app on mobile phones allows users to connect with “*Krishi Darshan*” programme on Doordarshan.

Cyber extension

Cyber extension refers to communication with the help of Information and Communication Technologies over an imaginary space over computer networks through telecom means. Mishra and Williams

(2006) suggested that adoption of computers with Internet access is associated with the age of farmer, educational level, off-farm business income, and regional location of the farm.

4. Non-Government Organizations (NGO)

NGOs have emerged as a strong force in supporting development issues across many sectors (Rajendran 2003). NGOs operate across all states to provide sustainable livelihood opportunities to small and marginal farmers through agriculture and livestock farming. NGOs are especially active where public and private sector has shown less interest in taking up the issue of development. NGOs provide various inputs into improving the productivity in livestock sector through timely dissemination of relevant information regarding various aspects of animal husbandry practices. Another thrust area is promotion of sustainable agriculture in support of environmental protection and improving animal health. One of the approaches taken by NGOs is through awareness programs and information support to their clients. It was envisaged in the tenth five year plan that an information system should be created based on animal health and production involving the public sector agencies, private industries and NGOs.

5. Personal Contacts and Progressive Farmers

Wakle *et al* (1998) suggested that farmers prefer to contact easily available personnel in informal settings instead of formal and remotely available contacts. Biradar (2000) revealed that farmers prefer informal and personal sources (friends, neighbours, shopkeepers) over impersonal sources for information. Sharma and Sahoo (2008) reported that the most effective information among the farmers was disseminated through personal contacts. Interpersonal communication channels are the most preferred among rural communities in India (Bhaskaran and Rao 1985).

Conclusion

Animal husbandry in India is dominated by traditional knowledge and practices. Information dissemination is an important intervention to improve the productivity in agriculture and allied sectors. Only a small fraction of livestock farmers access information regarding animal husbandry practices in India. However globalization has exposed the Indian farmers to a variety of challenges and opportunities at the same time. Hence dissemination of information on the latest developments in animal husbandry is necessary to support decision making capacity of the livestock farmers to improve the productivity of their stocks.

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