

## Content Analysis of 'Kalnadai Kathir' - A Livestock Farm Magazine

N. Akila<sup>1</sup>, V. Uma<sup>2</sup>, N. Narmatha<sup>3</sup> and K.M. Sakthivel<sup>4</sup>

1. Asso. Prof. and Head, Veterinary University Training and Research Centre, Panduthakaranpudur, Karur, TANUVAS, Tamil Nadu; 2&4. Asstt. Prof., 3. Prof., Department of Veterinary and Animal Husbandry Extension, Veterinary College and Research Institute, Namakkal, Tamil Nadu

Corresponding author e-mail: akila2528@gmail.com

### ABSTRACT

*A study was carried out on content analysis, a research method that involves the systematic study of the content of messages communicated in Kalnadai Kathir, a bimonthly livestock farm magazine of disseminates timely, recent and useful information on livestock and poultry farming in vernacular language. For this, the issues for ten years, published from 2000 to 2009 were selected with a total of sixty issues. The analysis revealed that the articles were informative, simple and easy to understand by the readers. The major species covered were general livestock, cattle and goat. In poultry species chicken was mainly concentrated. The contents covered in the magazine were mainly aimed for better scientific management practices and occurrence of diseases and its prevention by the farmers. Essay type of articles was the common mode of presentation and the livestock feed and farm related advertisements were published more in the magazine.*

**Key words:** Content analysis; Kalnadai Kathir; Farm magazine; Articles; Livestock;

Timely dissemination of technologies in right form to the right farmers is necessary to get the best benefit. Though livestock rearing had done by farmers along with agriculture since many decades, promulgation of recent information on scientific livestock farming support them to convert livestock farming into commercial livestock enterprises. Print media is one of the important and powerful mode to spread timely information to the farmers. It provides an excellent opportunity for the communicator to convey precise and timely information to a larger section of their clientele (Shirke and Sawant, 2006), since the printed information remains more permanent and ensures greater accuracy. Hence the farmers are sensitized about the scientific technologies on livestock farming through research journals and magazines from time to time.

One among such farm magazine is "Kalnadai Kathir" started in the year 1981, a bimonthly magazine of Tamil Nadu Veterinary and Animal Sciences University (TANUVAS) that disseminates timely, recent and useful information on livestock and poultry farming in vernacular language (Tamil). The magazine provides the latest information for the benefit of the farmers; but

it is essential to know, to what extent the magazine covers the information and is useful to the farmers. With this intension a study was conducted on content analysis, a research method or a measurement technique that involves the systematic study of the content of messages communicated (Stacks and Hockings, 1992) in Kalnadai Kathir to make the best utilization of the magazine in dissemination of livestock information in understandable and appreciable form.

### METHODOLOGY

The content analysis of Kalnadai Kathir was done by analysing the contents of ten year issues. For this, the issues published from the year 2000 to 2009 were selected. Since it is a bi-monthly magazine, there were six magazines per year, thus totally all the sixty magazines were taken for the study. The content analysis was done by analyzing the year wise contents viz., category, and species, topics. The contents in the articles were broadly categorized under general articles (includes university news and general topics related to livestock), livestock, fodder, poultry, fisheries, products (livestock and fisheries), home science, wild life and livestock

welfare. Further, the articles of livestock are classified species-wise as cattle & buffalo, sheep, goat, poultry, rabbit and pig. Under each species, sub categories were as follows; breeds and breeding, feeding, general management, disease prevention and control, record keeping, marketing, housing and other general articles. The articles of poultry were further classified as layer, broiler, backyard poultry, Japanese quail, duck, emu and ostrich. Under each category, they were subdivided into feeding, disease, housing, breeding, economics and seasonal management. The advertisements published in *Kalnadai Kathir* was classified as ads on livestock feed, medicine, farm implements, animal health products, laboratory equipments, chemicals, information on exhibition and fairs, private farms, university ads (university publications and farm video CDs price list, certificate and distance education courses, training details etc.). The advertisements under each category in all the issues were summed up and listed out. The readability of the articles are measured by applying the following formula :

$$\text{Gunning's Fog Index} = (\text{Av. SL} + \% \text{ of HW}) \times 0.4$$

Where

Av. SL= Average sentence length

HW= hard words

$$\text{Av. sentence length} = \frac{\text{No. of words in a sentence}}{\text{No. of sentences}}$$

$$\% \text{ of hard words} = \frac{\text{Complex words}}{\text{No. of words}} \times 100$$

Text having Gunning Fog Index of less than 8 is close to universal understanding.

## RESULTS AND DISCUSSION

*Category of articles* : The different categories of the articles were classified and presented year wise in Table

1. It was found that totally 802 articles were published for the ten years period (2000-2009) and were classified under 10 broad categories. Out of the total articles, 44.88 per cent (360 articles) covered livestock and pet animals' related information and 12.97 per cent (104 articles) were on general topic related to livestock and veterinary science whereas 12.71 per cent (102 articles) of the articles covered the subject matter related to poultry. Fisheries articles were published till 2007 in *Kalnadai Kathir*, later Meenvala Kathir, a separate farm magazine started by Tamil Nadu Veterinary and Animal Sciences University exclusively for fisheries and its allied subjects. Articles covering wildlife and welfare aspects of livestock were less than 1.00 per cent.

*Species and topics covered* : From the Table 2, it was revealed that the articles on all species were 31.11 per cent followed by cattle (24.44%) and goat (16.94%). More number of articles published under livestock category which includes the major livestock species possessed by the farmers like cattle, buffalo, sheep and goats. This might be due to create a basic awareness among livestock farmers about the common scientific management practices. Articles under cattle were given importance next to general livestock articles, since dairying is the main enterprise of the rural farmers'.

Among poultry, 66.67 per cent of the articles published exclusively on chicken (Table 3). This might be due to the reason that the chicken was domesticated earlier and popularly seen in commercial as well as backyard and the farmers need more technical information on the scientific advancements take place in this industry. The importance of emu and ostrich were also covered by few articles to draw attention of the readers since these species are emerging and just gaining momentum. The articles related to meat (34.48),

**Table 1: Year wise category of articles published**

Category	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total
General topic	19	04	09	06	05	09	16	12	14	10	104
Livestock and pet animals	30	48	57	35	25	32	15	35	38	45	360
Livestock welfare	-	-	-	01	01	-	-	01	-	01	04
Fodder	03	06	04	02	01	04	04	06	04	03	37
Poultry	16	16	06	07	08	11	09	09	12	08	102
Fisheries	25	20	13	09	07	08	10	04	-	-	96
Products	07	09	08	07	04	02	06	08	03	04	58
Success stories	01	-	-	-	04	01	06	04	03	03	22
Wild life	01	-	-	-	-	-	02	-	-	-	03
Home science	05	02	-	01	-	-	02	02	03	01	16
Total	107	105	97	68	55	67	70	81	77	75	802

milk (29.31%), fish (15.52) and egg (1.72) products were published under the livestock products category. Since meat and milk products gained popularity compared to fish and egg products, articles were more on that.

Table 2 shows the distribution of articles covered under fodder. It is evident that tree fodder, leguminous fodder, silage making and agro forestry were dealt to motivate the farmers to cultivate and preserve suitable green fodder for their livestock.

It was found from the Table 2 that 38.54 per cent of the articles were about fish followed by prawn and crab (21.88%). Only 5.21 per cent of the articles were about fishing. Fish, prawn and crab are the major favorite sea foods and also provide sustainable income for the fishermen might be the reason for more number of articles under these categories.

*Placement of advertisements* : It is found that in a period of ten years (2000-2009), 188 advertisements were published under different categories in the inner pages of *Kalnadai Kathir* for the benefit of the farmers. The advertisements were categorized and presented in Table 2. Among the 188 published, 30.32 per cent of the ads were given by commercial farms and implement firms followed by feed companies (28.72%), university advertisements (16.49%) and pharmaceuticals (13.83%). Since *Kalnadai Kathir* was subscribed by the livestock farmers throughout the state, the commercial farms were keen to advertise to increase the demand for their farm stock, feed and medicine. Further, *Kalnadai Kathir* acts as a channel for Tamil Nadu Veterinary and Animal Sciences University to announce the different courses, trainings, activities, products meant for farmers. All the advertisements were in black and white and mostly in full page (81.38%). *Dhananjay and Nataraju (2009)* in their study on content analysis of farm magazine in thirty issues each of 'Vijaya Karnataka' and 'Sujatha Sanchike' reported that nearly half of the illustrations of farm advertisements published in Sujatha Sanchike were black and white.

The results indicated that though the magazine contains advertisements on feed, pharmaceuticals, live animals and birds, it's not fulfilling the farmers demand on entire livestock farming since the same companies or farms advertisements were repeated.

*Contents covered* : A total of 155 articles under the contents related to scientific management in general, young one care, feeding, breeding, housing and farm

**Table 2: Articles under different category**

Category	No.	%
<i>Livestock and pet animals'</i>		
General Livestock	112	31.11
Cattle	88	24.44
Bull & Bullock	06	1.66
Buffalo	05	1.38
Sheep	23	6.39
Goat	61	16.94
Pig	23	6.39
Rabbit	22	6.11
Cat and Dog	20	5.55
Total	369	100.00
<i>Poultry species</i>		
Chicken	68	66.67
Duck	09	8.82
Japanese quail	08	7.84
Turkey	12	11.76
Emu and Ostrich	05	4.91
Total	102	100.00
<i>Livestock products</i>		
Milk	17	29.31
Meat	20	34.48
Fish	09	15.52
Egg	01	1.72
Clean milk production	06	10.35
General	05	8.62
Total	58	100.00
<i>Fodder</i>		
General information about fodder	17	45.95
Tree fodder	09	24.33
Leguminous	05	13.51
Grain	01	2.70
Silage making	03	8.11
Agro-forestry	02	5.40
Total	37	100.00
<i>Fisheries</i>		
General topic related to fisheries	15	15.62
Fish	37	38.54
Prawn & crab	21	21.88
Ornamental fish	18	18.75
Fishing	05	5.21
Total	96	100.00
<i>Advertisements</i>		
Feed	54	28.72
Pharmaceuticals	26	13.83
Animal Health Products	04	2.13
Announcement on exhibition	05	2.66
Glasswares and chemicals	11	5.85
Commercial farms & implements	57	30.32
University ads	31	16.49
Total	188	100.00

**Table 3. Distribution of articles on contents covered in management and disease control (N-155)**

Categories	Cattle	Buffalo	Sheep	Goats	Livestock	Total	%
Young one management	7	-	2	6	-	15	9.68
General management	12	2	4	12	36	66	42.58
Breeds & Breeding management	5	-	6	6	1	18	11.61
Feeding management	15	-	6	19	-	40	25.81
Housing management	-	-	-	4	-	4	2.58
Post-mortem	-	-	-	-	2	2	1.29
Economics	2	-	3	3	2	10	6.45
Total						155	100.0
Diseases and control measures	46	3	5	24	59	137	

economics of livestock and 137 articles related to various important livestock diseases causing economic loss to the farmers were published (Table 3). It is evident from the results that importance was less to buffaloes regarding the contents covered. Among the articles on management aspects, the young one management (9.68 per cent), general management & farming (42.58%), feeding management (25.81%) and breeds & breeding management (11.61%) were the major contents covered in the article in all species. The least covered contents were on housing and economics & marketing. Articles on disease and control measures, common and seasonal diseases affecting livestock were published more followed by cattle.

**Table 4. Topic-wise distribution under different categories among poultry (N-68)**

Topics	Total	%
General management	27	39.71
Feeding	7	10.29
Diseases	15	22.06
Farming	14	20.59
Breeds	1	1.47
Economics & Marketing	4	5.88

Out of the 68 articles published under poultry, articles were specific to broiler, backyard poultry and layers (Table 4). Main emphasis was given to general management (39.71%) followed by farming (20.59%), diseases (22.06%) and feeding (10.29%), marketing (5.88%) and seasonal management (5.88%). Apart from this, 10.29 percent of articles dealt only about eggs. The topics on poultry breeds were least covered (1.47%). The content of the articles published in the species other than chicken (34 articles) showed that articles on farming (61.76%) are more than other topics, since farmers need more information on alternate poultry farming.

Table 5 depicts that species other than poultry (chicken) were also equally covered.

**Table 5. Topic-wise distribution of other poultry species under different categories**

Topics	J.quail	Turkey	Duck	Emu & Ostrich
General	-	-	2	2
Feeding	-	1	-	-
Diseases	-	2	4	-
Farming	7	8	3	3
Breeds	-	1	-	-
Breeding	1	-	-	-

*Mode of presentation* : The Table 6 clearly stated that essay type (93.14%) was the common mode used to publish than the other modes of presentation. The same was revealed by *Sherief and Vasanthakumar (1997)* and *Vatta et al. (2010)* in their study on content analysis of farm magazine. It might be due to the fact of easiness in writing and understanding the information presented in the articles. Only very few articles were published in success stories (2.74%), Poetry (2.24%), conversation (1.12%) and question and answers (0.75%).

**Table 6. Mode of presentation (N= 802)**

Category	No.	%
Essay	747	93.14
Success stories	22	2.74
Poetry	18	2.24
Conversation	9	1.12
Question and answers	6	0.75

*Readability of the articles* : *Rayudu (1997)* meant that readability quality is the style and pattern of the writer used to convey ideas. Though different authors have different style of writing, there should be certain characteristics which are essential for understanding. The year wise average value of the articles for all the

**Table 7: Gunning's Fog Index score**

Year	Fog Index Score
2000	5.25
2001	4.78
2002	4.85
2003	5.45
2004	4.64
2005	5.30
2006	5.49
2007	5.47
2008	4.23
2009	4.66

ten years presented in Table 7 and ranged from 4.23 to 5.49 i.e. less than 8, which means that all the articles were simple and easy to read.

*Feedback from the readers on the content:* The important feedback rendered by the readers towards the content of the magazine was that the articles published in *Kalnadai Kathir* satisfy the information need of livestock farmers to maximum extent. However the subscribers revealed the following information demand in the magazine.

- Case studies, success stories, farm economics, loan and credit facilities, livestock marketing and research findings that would be useful in field conditions are to be given due importance while publishing the articles.
- A central or common theme should be present for each issue and the articles should cover entire

aspects of the theme and published.

- Articles related to Indigenous Technical Knowledge should be incorporated.
- Timely practical tips on seasonally important disease and management should be published.
- The addresses of the farmers throughout the state who vend farm inputs like livestock and poultry breeding stock, farm implements and fodder seeds should be published regularly.

## CONCLUSION

The content analysis of *Kalnadai Kathir* revealed that the contents have adequately served to fulfill the information demand of the subscribers and the need for change felt by them in the content as well as the mode of presentation of the articles. Since the magazine is mainly published for the sake of farming community and their upliftment, the necessary changes to be incorporated and the magazine should continue a powerful tool to the end users for decades as a major source of information to the readers. The same was opined by *Kausadikar et al. (2009)* in their study on content analysis of home science areas in newspaper. Overall the content analysis revealed that changes to be made regarding the mode of presentation, and more number of useful advertisements of varied firms and farms to attract the readers' interest towards the magazine.

*Paper received after revision on* : June 07, 2013

*Accepted on* : July 16, 2013

## REFERENCES

- Dhananjay, B. and Nataraju, M.S. (2009). Content analysis of farm advertisements in print and electronic media. *Mysore J. of Agril. Sciences*, **43** (4): 792-796.
- Kausadikar, P.A., Hiremath, U.S. and Badiger, C. (2009). Content analysis of home science areas in news papers. *Karnataka J. of Agril. Sciences*, **22** (2): 420-425.
- Rayudu, C.S. (1997) Communication, 1st Edition, Himalaya Publishing House, Mumbai.
- Sherief, A.K. and Vasanthakumar, J. (1997). Sustainable agricultural practices disseminated through farm magazines in Kerala. *J. of Extension Education*, **8** (2):1689-1693.
- Shirke, V.S. and Sawant, G.K. (2006). Developing readability formula for Marathi language. In: Sawant, A.G.; Sawant, G.K.; Hansra, B.S. and Shinde, S.B. (Eds), Farm Communication through mass media in the new millennium (pp119-131). Udaipur: Agrotech Publishing Academy.
- Stacks, I.W. and Hockings J. E. (1992). Essentials of communication research. Harper Collins, New York.
- Vatta, L., Dhaka, B.L. and Chayal, K. (2010). Content analysis of farm magazine. *Indian Res. J. of Ext. Edu.*, **10** (2):70-72.