



Utility of Vyavasaya Panchangam

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ABSTRACT

This study was carried out to investigate the utility of Vyavasaya Panchangam in Andhra Pradesh during 2016-17 to know the utility, problems and suggestions of readers of Vyavasaya Panchangam. 130 farmers in 13 districts of Andhra Pradesh were selected as respondents. Questionnaire was used to generate data, which were descriptively analysed to answer the research questions. The results showed that majority of respondents had medium perception towards utility (56.2%) and felt that information was need based and specific (66.20%) and timely (54.20%). To include market rates (67.69%) and new chemicals (57.69%) were suggested.

Key Words: Agriculture, Dissemination, Farming community, Popularization, Scientific methods, Technological information,.

INTRODUCTION

A breakthrough in any field of agriculture is not possible without an effective communication support to disseminate the research findings. Speedy dissemination of agricultural information and technological knowhow to the farmers is essential for bridging the gap between the agricultural scientists and farming community. The existing extension services are too small to perform their task, so the print media with their tremendous speedy range and force of impact, offer the greatest possibility for effective communication of agricultural technology. Print media used for farm communication include a variety of forms like newspapers, farm magazines, books, etc. (Jambhale *et al*, 2015). Farm people are more anxious about the advancement in science and technology to know what is happening in the field of agriculture research (Manjula *et al*, 2015). In view of this, The Acharya N.G. Ranga Agricultural University started publishing the Vyavasaya Panchangam, an annual publication consisting of technological information on agriculture and allied sectors from the year 1969-70 in Telugu in Andhra Pradesh with an aim to disseminate and popularize the scientific methods

of agriculture among the farming community. The printed information in Vyavasaya Panchangam remains more permanent; ensure greater accuracy and serves as ready reckoner for farmers further and future reference. Desire to make best utilization of Vyavasaya Panchangam in dissemination of agriculture information to the farmers for better understanding and to cater diversified information needs ignited to conduct this study. Keeping in view the importance of Vyavasaya Panchangam, the present study was undertaken with the objectives to study the agreement on the information provided in Vyavasaya Panchangam, perception towards its utility and elicit problems and suggestions from readers towards improvement of Vyavasaya Panchangam.

MATERIALS AND METHODS

Expost facto research design was followed for the study and Systematic sampling method was used for selecting the respondents. The study was conducted in 13 districts of state of Andhra Pradesh during 2016-17. The Vyavasaya Panchangam books published in 2016-17, 2015-16 and 2014-15 were considered for the study. The readers of these three

Table 1. Agreement on the information provided in Vyavasaya Panchangam. (n=130)

Sr. No.	Statement	Agree		Undecided		Disagree	
1	Need based	94	66.2	31	21.8	5	3.5
2	Timely	77	54.2	45	31.7	8	5.6
3	Specific	94	66.2	34	23.9	2	1.4
4	Practicable	58	40.8	59	41.5	13	9.2
5	Suitable to local conditions	104	73.2	12	8.5	14	9.9
6	Complete and comprehensive	78	54.9	43	30.3	9	6.3
7	Font size is good for reading	109	76.8	15	10.6	6	4.2
8	Paper quality good for reading	119	83.8	6	4.2	5	3.5
9	Cost affordable for farmer	120	84.5	3	2.1	7	4.9
10	Book size is convenient	123	86.6	2	1.4	5	3.5

publications formed the population of the study. The list of readers of this Vyavasaya Panchangam from 13 districts of Andhra Pradesh was obtained from the District Agricultural Advisory and Transfer of Technology Centres and Krishi Vigyan Kendras of concerned district. From these district lists of readers, alphabetical list of readers was prepared for each district and every 10th subscriber was selected as sample for the study. Thus, primarily 10 readers were selected from each of the district and in total constituting 130 readers as sample size. Suitable measurements were determined for quantification of the variables. The questionnaire was formulated and mailed to selected readers and collected the filled in questionnaire and from those who were not filled, collected data through telephonic interview. The results were drawn after processing the data by using mean, standard deviation, frequency, percentage and Correlation coefficients.

RESULTS AND DISCUSSION

Agreement on the information provided in Vyavasaya Panchangam

The table 1 indicates that 86.6 per cent of respondents agreed that Vyavasaya Panchangam book size is convenient, followed by 84.5 per cent of respondents opined that its cost is affordable for farmer and 83.8 per cent of respondents told that paper quality was good for reading. It also revealed that, 76.8 per cent of respondents agreed that its font size is good for reading.

Majority of the respondents (73.2%) agreed that Vyavasaya Panchangam is suitable to local conditions, as it included all field crops grown in state of Andhra Pradesh and their package of practices according to the different agro climatic regions of the state. The respondents also opined that Vyavasaya Panchangam is need based (66.2%) specific (66.2%) and timely (54.2%). Regarding

Table 2. Distribution of respondents according to their perception towards Utility of Vyavasaya Panchangam (n=130)

Sr. No.	Category	Class interval	Frequency	Percentage (%)
1	Low perception towards utility	40-50	25	19.20
2	Medium perception towards utility	51-61	73	56.20
3	High perception towards utility	62-72	32	24.60

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practicability, results revealed that though 40.80 per cent respondents, have agreed, 41.50 per cent have replied undecided, which might be due to weather aberrations and climate variability, the farmers could have not used the content properly in their farms.

Perception towards Utility / Usefulness of Vyavasaya Panchangam

The respondents were classified into three categories based on the perception towards utility of the information provided in Vyavasaya Panchangam, using class interval technique. It could be observed from the table 2 that majority of respondents had medium perception towards utility (56.2%) followed by high (24.6%) and low (19.2%) perception. In order to increase the perception towards utility of Vyavasaya Panchangam, the awareness of the farmers must be improved through training programmes about the content and its suitability and applicability.

The findings emanated about the topic wise usefulness are presented in Table 3. The vast majority (96.9%) of the respondents perceived that information regarding introduction for each crop and 88.7 per cent of respondents felt about varieties and their description were useful to them, as seed and crop introduction is important to them because they are vital in crop selection and giving yields. Majority (83.1%) of the respondents perceived that information regarding addresses of extension centres were useful to them, as it is useful for them to clear their doubts regarding the information provided and all most same (81.7%) was observed in case of information on agro-climatic zones and addresses of research stations. Regarding micro nutrient recommendations, 81.7 per cent of the respondents opined that these were useful. This may be due to the fact that in recent times, micronutrient deficiencies are occurring in various crops and also due to these crop yields are reducing drastically hence farmers are regularly utilizing the information.

It could be observed that 80.3 per cent of respondents indicated that information provided on description of symptoms of damage caused by pests and diseases was useful to them, as they found the identification of pests and diseases and their control measures easily understood by the information provided. Further 80.3 per cent of the respondents perceived that contact addresses for each crop and allied aspects to get additional information was useful, as in this phone number of concerned scientist also given to get more additional information and farmers were feeling happy as scientists are responding on time. These results were in conformity with the findings of Shireesha *et al* (2011). The results (Table 3) indicated that soil and soil types (79.6%), seed rate, spacing and seed treatment (71.1%), weed management (71.1%) and Cropping seasons and time of sowing (61.3%) were useful.

Majority of the respondents (62%) perceived honey bees information was not useful. This may be due to the fact that farmers lacking awareness on benefits of low cost production technologies and rearing of honey bees hence the extension functionaries should organize training programmes to increase the utilization of these technologies.

It could be inferred that 59.9 per cent of the respondents opined that traditional panchangam was not useful. This may be due to the fact that generally farmers using general calendars and some times pundits for knowing traditional panchangam instead of traditional panchangam in Vyavasaya Panchangam.

The data also revealed that 51.4 per cent of the respondents felt that home science information was not useful as farmers had unaware of home and family importance in development, hence extension functionaries should increase the awareness on importance of home science.

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Table 3. Usefulness of the topics covered in Vyavasaya Panchangam. (n=130)

Sr. No	Item	Useful		Moderately useful		Not useful	
1	Traditional Panchangam	12	8.5	33	23.2	85	59.9
2	Agriculture operations as per telugu calender	35	24.6	62	43.7	33	23.2
3	Information on agro-climatic zones and Postal addresses of research stations	116	81.7	12	8.5	2	1.4
3	Addresses of Extension centres	118	83.1	9	6.3	3	2.1
4	Information on agro-climatic zones and addresses of research stations	116	81.7	12	8.5	2	1.4
5	Climate – Crop production – Market rate analysis	32	22.5	30	21.1	68	47.9
6	Introduction for each crop	126	96.9	1	0.8	3	2.3
7	Soil & Soil types	113	79.6	16	11.3	1	0.7
8	Cropping seasons and time of sowing	87	61.3	40	28.2	3	2.1
9	Seed rate, Spacing and Seed treatment	101	71.1	27	19.0	2	1.4
10	Varieties & their description	126	88.7	2	1.4	2	1.4
11	Fertilizer recommendation	47	33.1	62	43.7	21	14.8
12	Weed management	101	71.1	27	19.0	2	1.4
13	Water management	39	27.5	54	38.0	37	26.1
14	Micro nutrient recommendations	116	81.7	10	7.0	4	2.8
15	Description of symptoms of damage caused by pests and diseases	114	80.3	14	9.9	2	1.4
16	Control measures of pests & diseases	54	38.0	69	48.6	7	4.9
17	Post-harvest technology	49	34.5	33	23.2	48	33.8
18	Compatibility charts for fertilizers and pesticides	24	16.9	55	38.7	51	35.9
19	Agricultural implements	50	35.2	59	41.5	21	14.8
20	Honey bees	34	23.9	8	5.6	88	62.0
21	Micro irrigation methods	67	47.2	23	16.2	40	28.2
22	Home science	45	31.7	12	8.5	73	51.4
23	Contact addresses for each crop and allied aspects to get additional information	114	80.3	12	8.5	4	2.8

Table 4. Correlation coefficients (r-values) between independent variables with utility of Vyavasaya Panchangam (n=130)

Sr.No.	Independent Variable	Correlation co-efficient of utility
1	Age	0.206*
2	Education	0.173*
3	Farming experience	0.106 ^{NS}
4	Vyavasaya Panchangam Reading Experience	0.304**

* Significant at 5% level of significance

* Significant at 1% level of significance

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Table 5. Problems while reading / utilizing the Vyavasaya Panchangam.

(n = 130)

Sr. No.	Problem	Frequency	Percentage (%)
1	Giving old chemicals	75	57.69
2	Only technical names are given	52	40.00
3	Routine information	42	32.31
4	Only giving high cost farm machinery	41	31.54
5	Scientists not responding to phone calls	40	30.77
6	Fertilizer recommendations are not sufficient	38	29.23
7	Non availability of recommended crop varieties	28	21.54
8	Forecast prices are not prevailing in reality	24	18.46
9	Giving fertilizers recommendations in N, P & K	22	16.92
10	Pesticides recommendations are in ml or gr / litre of water	17	13.08
11	Sprayers information not given	15	11.54
12	Giving fertilizer recommendations per hectare	6	4.615
13	Not giving organic pesticides	4	3.077
14	Compatability of pesticides tables are non-understandable	3	2.308
15	Non availability of Biological control agents	3	2.308
16	Drip & Sprinkler maintenance information not given	3	2.308
17	Clarity of disease pictures not good	2	1.538
18	Giving recommendations in percentages (2% urea)	2	1.538

Relationship between personal characteristics with utility of Vyavasaya Panchangam

Positive and significant correlation (Table 4) was observed between age, education with utility of Vyavasaya Panchangam by the respondents. The variable education provides the respondent a broader horizon on any innovation. More the education more will be the farmer's outlook towards various sources of information. Because of education, the farmers could perceive the content of Vyavasaya Panchangam better, thereby increasing the utility of the technical information given in Vyavasaya Panchangam. This might be the reason for positive, high significant relationship between education and utility. Vyavasaya Panchangam reading experience has positive and highly significant correlation with utility of Vyavasaya Panchangam. This reveals the fact that as number of years of study of Vyavasaya Panchangam increases the utility of Vyavasaya Panchangam also increases. Hence, extension

functionaries should motivate the farmers to study the Vyavasaya Panchangam. Farming experience was positively and non significantly correlated with utility of Vyavasaya Panchangam.

Problems while reading /utilizing the Vyavasaya Panchangam

More than half of the respondents (57.69%) opined that chemicals i.e. pesticides and insecticides in Vyavasaya Panchangam were old, as new chemicals available in the market were not given in this book. 40 per cent of the respondents also perceived technical names are given, not the brand names in market, hence they are facing problem in case of purchasing a particular chemical.

Routine content, high cost of machinery, scientists not responding to phone calls, insufficient fertilizer doses recommended etc. are the other problems expressed by the readers (Table 5).

Table 6. Suggestions to overcome the above problems / to improve the Vyavasaya Panchangam (n = 130)

Sr. No.	Suggestion	Frequency	Percentage (%)
1	Marketing Information should be provided	88	67.69
2	Include new chemicals	75	57.69
3	Chemicals brand names also to be included	61	46.92
4	Provide all scientists phone numbers	58	44.62
5	Make availability of Vyavasaya Panchangam	52	40.00
6	Include new technology information	49	37.69
7	Provide information about low cost farm machinery	48	36.92
8	Revise fertilizer recommendations	38	29.23
9	Crop varieties availability addresses	28	21.54
10	Provide fertilizer recommendations in Urea, SSP,DAP & MOP forms	22	16.92
11	Give pesticide recommendations like 10 L / 20 L / tank / acre etc.	17	13.08
12	Provide information about Sprayers	15	11.54
13	Provide information about All India released varieties which are suitable to AP	9	6.92
14	Provide ICAR & ICRISAT scientists phone numbers	9	6.92
15	Provide more colour photos	9	6.92
16	Organic pesticides	9	7.69
17	Give Fertilizer recommendations per Acre	8	6.15
18	Improve quality of Disease and Nutrient deficiency photos	6	4.62
19	Farmer interest groups	3	2.31
20	Availability of Biological control agents addresses	3	2.31
21	Write compatibility tables in sentences	3	2.31
22	Fish culture in paddy fields	2	1.54
23	Maintenance of Drip & Sprinkler systems	2	1.54
24	Provide department numbers	2	1.54
25	Crop subsidies	2	1.54
26	Don't write recommendations in Percentages (2% Urea)	2	1.54

Suggestions to overcome the above problems / to improve the Vyavasaya Panchangam

Majority of the respondents (67.69%) suggested including marketing information for selling of commodities, market prices, contact numbers of market personnel and they also requested to create toll free number exclusively for knowing market information. This may be due to the fact that in recent times farmer's profits majorly influenced

by prevailing market prices. Another important suggestion is inclusion of new chemicals as felt by 57.69 per cent of the respondents (Table 6). It is also found from the table 6 that they suggested to include chemical brand names as in Vyavasaya Panchangam instead of technical names only, because in pesticide market, mostly using only brand names hence sometimes facing the problem of purchasing quality chemical for spraying.

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From table 6, it could be found that 44.62 per cent suggested providing all scientists phone numbers in Vyavasaya Panchangam as farmers opined that getting suggestions from scientists directly increases satisfaction as they have highest credibility and reliability of sources of information. 40.00 per cent of the respondents suggested that make availability of Vyavasaya Panchangam books at village or mandal level with multipurpose extension workers, agricultural extension officers and mandal agricultural officers as they do not have access to Vyavasaya Panchangam. Hence extension functionaries should see that Vyavasaya Panchangam is available to all the farmers and 37.69 per cent of respondents suggested including new technology information.

It was found from table 6 that 36.92 per cent of respondents suggested to include information about low cost farm machinery. It is due to majority of the respondents are small and marginal farmers hence publishing high cost farm machinery is of little use for them and they need low cost farm machinery information as these machinery can be purchased and they can utilize in their farms. 29.23 per cent of respondents felt there is need for revising of fertilizer recommendations given in this book. These may be due fertility decline in soils year after year and less usage of farm yard manure or compost, hence extension functionaries should

organize training programmes and demonstrations on fertilizer management.

The other suggestions like inclusion of crop varieties availability addresses (21.54%), fertilizer recommendations in Urea, SSP, DAP & MOP forms (16.92%), Give pesticide recommendations in 10 L / 20 L / tank / acre (13.08%), information about Sprayers (11.54%) etc. were also reported.

CONCLUSION

Keeping in view, the utility of the Panchangam, the publishers and extension functionaries should see that it is more accessible to the farmers. The problems and suggestions expressed by the readers must be given due attention by the content contributors, for further improving the quality as well as utility of the Panchangam.

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