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Orignal Article

Perception About the Practicability of Dairy Innovations

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Abstract

An innovation, no matter how well designed, would be perceived useful only when it is properly adopted. Practicability is the degree to which a particular dairy practice may be tried on a limited basis which can be communicated, the results visible, demonstrable and trialable on the farmer's fields. In the present investigation practicability is studied under the subheads. A total of nine dairy innovations were suggested for adoption and 360 dairy farmers, Communicability, Visibility, Demonstrability and trialability who were first to adopt the innovations were selected from three districts of Andhra Pradesh i.e., Visakhapatnam, Krishna and Chittoor respectively. Results revealed that, the recommendations i.e, package of practices for rearing heifers, pregnant and lactating animals; feeding of area specific mineral mixture; strategies for enhancement of milk yield and quality; cultivation and feeding of azolla and use of ICT's in adoption of innovations were perceived to be communicable, visible, demonstrable and trialable by majority of the respondents. The innovations possessing complicated technicalities may be made practicable by improvising skills through hands on training, interaction through mobile phones/social media and publicity through mass media.

Keyword: Communicability; Practicability; Visibility; Demonstrability; Trialability.

Introduction

An innovation is defined as an idea, practice or object that is perceived as new by an individual farmer or other unit of adoption **(*Rogers 2003*).** An innovation, no matter how well designed, would be perceived useful only when it is properly adopted. Therefore, one of the important duties of those responsible for innovations is to maximize their adoption rate which in turn is influenced by relative advantage, compatibility, complexity and practicability of an innovation. Practicability is the degree to which a particular dairying practice may be tried on a limited basis which can be communicated, the results visible, demonstrable and trialable on the farmer's fields. The entire process of information seeking and information processing activity where an individual is motivated to reduce risk of uncertainty of an innovation is called the innovation decision process which includes different stages viz., knowledge, persuasion, decision and implementation and confirmation stage. The lack of innovation spirit among farmers is generally due to asymmetry of information relating to the innovation introduced, technical know how, market trends and infrastructural plat-form **(*Egyir I.S et al., 2011*).** The supply and demand of improved technologies with their feasibility and practicability is the need of

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the hour which involves a multifaceted interaction among all the stake holders to trigger innovation, adoption and diffusion **(*Andrew Hall et al., 2003*).**

Methodology

In the present investigation, practicability is operationalized as the degree to which a particular dairying practice may be tried on a limited basis and was studied under the following four sub-heads:

Communicability: Operationalized as the perception of respondent about the extent to which dairy technologies can be communicated to other expressed in terms of 'communicable' or 'non-communicable'.

Visibility: Operationalized as the perception of respondents regarding the extent of visibility of dairy technologies and their results to other farmers in terms of **'visible'** or **'invisible'**.

Demonstrability: Operationalized as the perception of respondents about the extent to which dairy technologies can be demonstrated in the field to others. This was expressed in terms of **'demonstrable'** or '**not demonstrable'.**

Trialability: Can be operationalized as the perception of respondents regarding the extent to which dairy technologies can be tried in small scale in the field, expressed in terms of **'not trialable'** or **'trialable'**. Further, three regions of Andhra Pradesh viz., North coastal, Coastal and Rayalaseema regions were selected purposively for the study to ascertain the rate of adoption and diffusion of innovations by the dairy farmers in the state. One district was selected respectively from each region i.e., Visakhapatnam, Krishna and Chittoor based on highest livestock population and from each district and two mandals and from each mandal two villages were selected through simple random sampling technique. Thus a total 18 villages were selected and 20 farmers from each village ranking best in the adoption of innovations were selected constituting a sample of 360 farmers for the study.

Results

The results pertaining to the perception of dairy farmers regarding the practicability of dairy technologies were presented in Table 1 and Fig. 1. The practicability of dairy innovations is measured in terms of communicability, visibility, demonstrability and trialability.

Results of Table 1 indicated that majority of the dairy farmers perceived the package of practices for rearing heifers, pregnant and lactating animals as communicable (95.28%), visible (83.61%), demonstrable (91%) and trialable (93.3%) respectively while the innovation formulation and feeding of complete feed blocks was perceived to be communicable (68%) by majority of the dairy farmers while visibility is seen to an extent of 20 percent only. Formulation of complete feed blocks found to be demonstrable (79.72%) and non-trialable (87.22%) by majority of the dairy farmers.

Feeding of area specific mineral mixture was perceived to be communicable (94.17%), visible (88.33%) demonstrable (95%) and trialable (86.67%) by a great majority of the dairy farmers. The innovation cultivation and feeding of hydrophonic fodder was perceived to be non communicable (83.89%) by majority of the respondents while visibility was opined by more than half of the respondents (54.72%).

Demonstrability is felt by majority (88.3%) of the dairy farmers and non trialability of this innovation is perceived by almost all the dairy farmers (98%). Strategies for enhancement of milk yield and quality were perceived to be communicable (60.28%), visible (84.17%), demonstrable (52.2%) and trialable (53.33%) by majority of the dairy farmers. The innovation, use of milking machine was felt non communicable (84.17%), visible (50.83%), demonstrable (70.56%) and non trialable (91%) by a sizeable section of the dairy farmers.

Cultivation and feeding of Azolla was found to be communicable (97.2%), invisible (62%), demonstrable (52%) and non trialable (62.78%) by majority of the dairy farmers. Use of ICT's for adoption of innovations were perceived as communicable (89.5%), visible (87%), demonstrable (82.5%) and non trialable (68.33%) by more than 2/3rds of the dairy farmers. Marketing strategies to improve milk sales were found to be communicable (77.22%), visible (54.72%), demonstrable (66.67%) and nontrialable (84.17%) by majority of the dairy farmers.

Table 1 : Distribution of dairy farmers according to their perception about practicability of dairy innovations.

	Category	Innovation																	
		1		2		3		4		5		6		7		8		9	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Communi cability	Commun icable	343	95.28	245	68	339	94.17	58	16.11	217	60.28	57	15.83	350	97.2	322	89.5	278	77.22
	Non communi cable	17	4.72	115	32	21	5.83	302	83.89	143	39.72	303	84.17	10	2.80	38	10.5	82	22.78
Visibility	Invisible	59	16.39	288	80	42	11.67	163	45.28	57	15.83	177	49.16	137	38	47	13	163	45.28
	Visible	301	83.61	72	20	318	88.33	197	54.72	303	84.17	183	50.84	223	62	313	87	197	54.72
Demons trability	Demons trable	328	91	287	79.72	341	95.00	318	88.3	188	52.22	254	70.56	188	52.00	297	82.5	240	66.67
	Not demons trable	32	9	73	20.28	19	5.00	42	11.7	172	47.78	106	29.44	172	48.00	63	17.5	120	33.33
Triala bility	Trialable	336	93.3	314	87.22	312	86.67	7	2.0	168	46.67	328	91.0	134	37.22	114	31.67	57	15.83
	Non- Trialable	24	6.7	46	12.78	48	13.33	353	98.0	192	53.33	32	9.0	226	62.78	246	68.33	303	84.17

1. Package of practices for rearing, heifers, pregnant and lactating animals.
2. Formulation and feeding of complete feed blocks.
3. Feeding of area specific mineral mixture.
4. Cultivation and feeding of hydrophonic fodder.
5. Cultivation and feeding of Azolla.
6. Strategies for enhancement of milk yield and quality.
7. Use of milking machine.
8. Marketing strategies to improve milk sales.
9. Use of information and communication technologies for adoption and diffusion of innovations.

N – Frequency % - Percentage

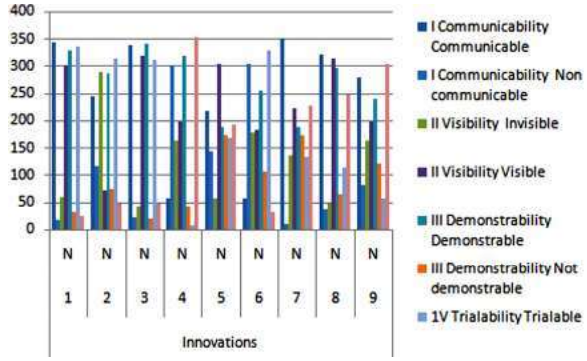


Fig. 1: Distribution of dairy farmers according to their perception about practicability.

Discussion

Perusal of results of Table 1 revealed that, the recommendations i.e., package of practices for rearing heifers, pregnant and lactating animals, feeding of area specific mineral mixture, strategies for enhancement of milk yield and quality, cultivation and feeding of azolla, use of ICT's in adoption of innovations were perceived to be communicable, visible, demonstrable and trialable by majority of the respondents. The above practices are easily communicable from one farmer to the other, the results can be witnessed within a short period of time, can be demonstrated and tried on any dairy animal, which might be the plausible reasons for above perception **(*Devendra C 2008*)**.

The recommendations formulation and feeding of complete feed blocks, cultivation and feeding of hydroponic fodder, technology of using milking machine, marketing strategies to improve milk

sales were perceived to be demonstrable, but non-communicable, invisible, and non trialable by majority of the respondents. Detrimental problems like high cost of these technologies, low returns, no reach to technical guidance, market fluctuations, minimal support from the government sector may be the attributed reasons for above perception. The findings gained support from Vasantha (2002) who observed similar results on perception.

Conclusion

The innovations which are perceived to be communicable, visible, demonstrable and trialable were adopted by majority of the respondents. The farmers of the study area possessed sound knowledge, considerable experience, innovativeness, medium to high risk and economic orientation which paved them to adopt those innovations which are practicable in their local circumstances. The innovations which possess complicated technicalities may be made practicable by improvising skills through hands on training, technical advice by the extension functionaries, interaction through mobile phones/social media, extensive trainings, demonstrations and publicity through mass media.

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