RESEARCH NOTE

Perception of Dairy Farmers towards Converting Non-Organic to Organic Dairy Farming-An Analysis

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ABSTRACT

Organic Dairy Farming (ODF) is a means of food production with a large number of rules directed towards a high status of animal welfare, restricted usage of medical drugs, care for the environment and the production of a healthy product without residues. The perception of the dairy farmers was studied in terms of Animal health care, Dairy farming practices, Ecosystem Government support, Economic viability, Suitability, and Certification. Majority of dairy farmers (60.00%) had medium perception towards conversion to ODF. Nearly one third of the respondents agreed that 'increased milk production on using hormones and antibiotics discourages farmers to go for ODF' and similar percentage disagreed that 'the non- usage of regular deworming and periodical vaccination makes animal more susceptible for diseases'. (62.50%) of the respondents were 'unaware that most of the practices they follow are organic by nature' and nearly half of the respondents agreed that more holding area per animal discourages conversion to ODF. One third of the respondents agreed that 'creation of buffer zone between non organic and organic is difficult in India'. Half of the respondents agreed that 'for OF local breeds perform better, Govt. should put efforts to improve them, than to import exotic breeds', 60 per cent of the dairy farmers agreed that 'lack of proper infrastructure for distribution of organic produce' and more than half of the respondents agreed that ODF suits big farmers and is not practiceable for small and marginal farmers. Half of the respondents agreed that 'certification body of authority must certify the organic production and processing of milk without fees and charges'.

Key words: *Perception; Non-Organic to Organic dairy farming; Converting to Organic dairy farming;*

Organic dairy farming postulates raising of animals on organic feed i.e, pastures cultivated without the use of fertilizers or pesticides, along with the restricted usage of medicines, antibiotics and hormones. In organic dairy system, animal welfare is created by the holistic management of the dairy herd. Animal welfare is given prime importance by covering all the managemental practices to organic dairy farming. Disease prevention in organic farming is based on the principle that an animal is allowed to exhibit natural behavior is not subject to stress, is fed optimal feed, will have a higher capability to cope with infections than animals in conventional way. Benefits of the basic standards are primarily related to environment friendly production and to the animal welfare issue while the issues of animal health and product quality are more influenced by the specific farm management than by production method.

Consumers of today place increased importance on food safety, environmental and health issues and quality, hence they are willing to purchase organic products. The General Agreement on Tariffs and Trade (GATT) allows governments to act on trade in order to protect human, animal and plant life/health. Therefore, India needs to address the emerging challenges affecting the exports of dairy products, since the developed countries with quality standards are acting as a formidable barrier for developing countries like India. Recent problems related to food safety, such as Mad cow disease, FMD (Foot and Mouth Disease) have

prompted many governments to initiate implementing food traceability systems, to determine the levels of pesticide residues, veterinary drugs, aflatoxins, heavy metals, dioxin contamination in milk etc. Thus, organic dairy farming is the solution, as it aims at betterment of the animals, eco-friendly in nature, and in the other hand consumers also prefer organic food giving importance to safety and quality parameters. There is a demand for organic products and to meet it farmers are needed to be encouraged to take up organic dairy farming. So, to know the perception of the farmers on discouraging factors while few farmers are already practicing organic agriculture the study has been conducted.

METHODOLOGY

The present research was carried out in Medak district of Telangana state, where the dairy farmers have the sensitization about organic dairy farming. Three mandals were selected randomly, from each mandal 4 villages were selected thus a total of 12 villages were selected. From each village 10 dairy farmers were selected thus a total of 120 farmers were selected for the study. A schedule was developed with 19 statements under 7 sub-heads to elicit perception of the respondents towards organic dairy farming, frequencies and percentages were calculated for each. The individual respondent was asked to state on 5 point continuum of "Strongly Agree", "Agree", "Don't know", "Disagree", "Strongly Disagree" with a weightage of 5,4,3,2 and 1 respectively. Based on the scores the perception level was calculated using the formula:

$$P = \frac{\text{Individual respondents score}}{\text{Total Score}} \times 100$$

Where

P=Perception level

Scores secured by each respondent for all the statements were summed up to get the total score, later the respondents were categorized into low, medium and high, using mean and S.D.

RESULTS AND DISCUSSION

From the Table 1, it confirmed that majority (60.00%) of the respondents had medium level of perception followed by low (23.33%) and high (16.67%) level of perception of dairy farmers towards converting non-organic to organic dairy farming.

Perception of dairy farmers towards converting non-organic to organic dairy farming was studied and was found that majority (60.00%) of the respondents were under medium category followed by low perception (23.33%) and by high perception of (16.67%). The results are in agreement with studies of *Oyesola et al., (2011)* but *Laepple and Donnellan (2008)* expressed a very low level of perception on organic farming and *Koesling (2008)* stated that 4% of today's conventional farmers had plans to convert to organic farming. *Herath and Wijekoon (2013)* and *Singh and George (2012)* expressed that they had favorable attitude towards organic farming.

Table 1. Perception of dairy farmers towards converting non-organic to organic dairy farming (N=120)

Category	No.	%
Low	28	23.33
Medium	72	60.00
High	20	16.67

$\bar{X}$ =53.95 σ : 6.47

Animals health care: Perception of respondents on animal health care revealed that (41.67%) of respondents disagreed about 'non usage of regular deworming and periodical vaccination makes animals more susceptible for diseases', followed by (35.83%) of farmers agreed on 'in Indian conditions, only prevention is not sufficient for the control of diseases in animals'. The reasons for this trend might be that, though the farmers had awareness about the importance of deworming and vaccination, they were not willing to practice due to cost involvement. Nearly (44.17%) of the respondents agreed on 'increased milk production on using hormones and antibiotics discourage farmers to go for ODF', the farmers might have experienced good results whenever they had used hormones for milk production and antibiotics for health care were the reasons for above result. The similar findings were reported by *Berentsen et al. (2012)* and *Laepple and Donnellan (2008)*.

Dairy farming practices: The majority (62.50%) of the respondents agreed on 'farmers are unaware that most of the practices they follow are organic by nature' then (43.33%) agreed 'farmers are to make little change in their practicing methods to change the value of their dairy products as they are organic by default'. (54.17%) perceived that 'more holding area per animal discourages conversion to ODF'. The reasons for above results that

the most of the non-organic dairy farming practices were emulated from their ancestors who used naturally available inputs for dairy farming, which are very close to organic standards but farmers were unaware about organic dairy farming standards and most of the dairy farmers in the study area possessed small and marginal land holding, so allocating more holding area per animal was discouraging factor for conversion into organic dairy farming. The above findings are in concurrence with *Subrahmanyeswari and Chander (2013), Subrahmanyeswari & Chander (2008a), Pathak & Chander (2002)*.

Ecosystem: Perception on ecosystem revealed that (41.67%) of respondents agreed that 'creation of buffer zone between non organic and organic dairy farming is difficult in India', followed by more than half of the farmers agreed that 'it is difficult to change every component of ecological cycle like land, water, air, instruments, human beings which act as a source of contamination'. The above findings might be due to, the advent of green revolution in India has lead to the indiscriminate and excessive use of chemicals which caused damage to the ecosystem and thus separation between non-organic and organic farming is a difficult job.

Government support: The majority (55.83%) of respondents opined that local breeds perform better in organic farming, government should take efforts to improve local breeds than importing exotic breeds. The above trend might be due tomost of the farmers possessed indigenous, upgraded dairy animals and a few had crossbred dairy animals, so the government may promote rearing of local breeds instead of exotic breeds which will not be adapted well to local conditions. The same findings were reported by *Chander et al. (2011)*. The results also brought out that one-half (50.00%) of the respondents agreed that village level institutions, dairy cooperative societies, dairy farmers association, new insurance policies should be involved to encourage ODF. The results might be due to the village level institutions, dairy cooperative societies and other related institutions support in creating awareness, skill development and educational programmes on organic dairy. The above findings drew support from the studies of *Singh and George (2012)* and *Patil (2008)*.

Economic viability: The results from the Table 2, revealed that majority (60.00%) of respondents agreed on 'lack of proper infrastructure for distribution of organic produce' and (55.00%) 'cost of ODF is more due to its labor intensive nature', The farmers did not find any organic milk collection centre and institutional support by any dairy firm in their vicinity so they found it very difficult in selling organic milk and non-availability of labour and high labour charges. The above findings were in agreement with *Boulay (2010) and Oruganti (2011)*.

Suitability: The results from the Table 2, on suitability of ODF revealed that the majority (55.00%) agreed that ODF suits big farmers and is not practicable for small and marginal farmers, half of the respondents (50.00%) 'for semi-urban places it is easy to adopt ODF for both inputs and marketing of produce', (27.50%) 'farmers were not aware about educated consumer's preference of OD products'. The above trend might be due to the fact that organic dairy farming demands documentation, more holding area per animal and labour intensive nature, lack of market, high price and lack of inputs availability in villages. Thus, the farmers perceived that it is suitable only to big farmers and to semi-urban and urban places. The above results are in accordance with the observations made by *Koesling (2008)*.

Certification: The findings from Table 2, on certification revealed that more than half (55.83%) of respondents agreed that 'a duly constituted certification body of authority must certify the organic production and processing of milk without fees and charges', (33.33%) 'organic certification is complex and very lengthy process'. The results might be due to that all the farmers of study area were unaware about organic certification procedure due to illiteracy. Similar findings were reported by *Hanoglu (2013), Patil (2008)* and *Chander et al. (2011)*.

CONCLUSION

Farmers' perception towards conversion to ODF is moderate. The parameters which are discouraging for conversion to ODF are more disease occurrence on non usage of conventional medicines, more land holding area per animal, difficulty in changing every component of ecological cycle like land, water, air, instruments, human beings which act as a source of contamination, cost of ODF is more due to its labor intensive nature. Majority farmers will be encouraged to take up ODF if the Govt. takes efforts to improve local breeds than to import exotic breeds as they perform better, for the distribution of organic produce proper infrastructure is developed and certification process is made easier. The perception of the dairy farmers can be improved by capacity building of the farmers, and changing the attitude of the farmers through continuous efforts of extension agency and line departments in a vibrant mode.

Table 2. Distribution of respondents according to their perception towards animal health care (N=120)

Statements	SA	A	UD	D	SD
Animal health care					
The non usage of regular deworming and periodical vaccination makes animal more susceptible for diseases	9 (7.50)	28 (23.33)	31 (25.83)	50 (41.67)	2 (1.67)
In Indian conditions, only prevention is not sufficient for the control of diseases in animals	7 (5.83)	43 (35.83)	27 (22.50)	40 (33.33)	3 (2.50)
Increased milk production on using hormones and antibiotics discourages farmers to go for ODF	22 (18.33)	53 (44.17)	14 (11.67)	30 (25.00)	1 (0.83)
Dairy farming practices					
Farmers are unaware that most of the practices they follow are organic by nature	0 (0)	75 (62.50)	33 (27.50)	8 (6.67)	4 (3.33)
Farmers are to make little change in their practicing methods to change the value of their dairy products as they are organic by default	9 (7.50)	52 (43.33)	20 (16.67)	32 (26.67)	7 (5.83)
More holding area per animal discourages conversion to ODF	16 (13.33)	65 (54.17)	31 (25.83)	8 (6.67)	0 (0)
The conversion into OF is time consuming process	35 (29.17)	12 (10.00)	61 (50.83)	9 (7.50)	2 (2.50)
Ecosystem					
Creation of buffer zone between non organic and organic is difficult in India	4 (3.33)	50 (41.67)	40 (33.33)	16 (13.34)	10 (8.33)
It is difficult to change every component of ecological cycle like land, . water, air, instruments, human beings which act as a source of contamination	31 (25.83)	34 (28.33)	35 (29.17)	13 (10.83)	7 (5.83)
Government support					
Village level institutions, dairy cooperative societies, dairy farmers association, new insurance policies should be involved to encourage ODF.	17 (14.17)	60 (50.00)	25 (20.83)	15 (12.50)	3 (2.50)
For OF local breeds perform better, Govt. should take efforts to improve them, than to import exotic breeds	(16.67)	(55.83)	(4.17)	(19.16)	(4.17)
Economic viability					
Reduced yield per animal and cost per animal management is increased in ODF	0 (0)	45 (37.50)	60 (50.00)	15 (12.50)	0 (0)
Cost of ODF is more due to its labor intensive nature	20 (16.67)	66 (55.00)	9 (7.50)	20 (16.67)	5 (4.16)
Lack of proper infrastructure for distribution of organic produce	28 (23.33)	72 (60.00)	15 (12.50)	3 (2.50)	3 (2.50)
Suitability					
ODF suits big farmers and is not practiceable for small and marginal farmers	21 (17.50)	66 (55.00)	5 (4.17)	27 (22.50)	1 (0.83)
Farmers are not aware about educated consumers preference of OD Products	5 (4.17)	33 (27.50)	50 (41.67)	25 (20.83)	7 (5.83)
For semi-urban places it is easy to adopt ODF for both inputs and marketing of produce	12 (10.00)	60 (50.00)	15 (12.50)	27 (22.50)	6 (5.00)
Certification:					
Organic certification is complex and very lengthy process	0 (0)	40 (33.33)	80 (66.67)	0 (0)	0 (0)
A duly constituted certification body of authority must certify the organic production and processing of milk without fees and charges	0 (0)	67 (55.83)	53 (44.17)	0 (0)	0 (0)

*values in the parentheses indicate percentages. (SA-Strongly Agree, A- Agree, UD-Undecided, D- Disagree, SD- Strongly Dis,agree)

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