

## RELATIONSHIP OF SOCIO-ECONOMIC CHARACTERISTICS WITH ADOPTION AND MARKETING ORIENTATION OF DAIRY FARMERS CO-OPERATIVE SOCIETY

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### ABSTRACT

The present study was carried out at purposively selected Gaighata and Bagdah block of North-24 Pgs district, West Bengal. From each of the purposively selected two blocks, 25 percent (Approximately) of the Village Level Milk Co-operative Societies were selected randomly. In this way 10 Village Level Milk Co-operative Societies (25 Percent) from Gaighata Block and 20 (25.64 Percent) from Bagdah Block were selected randomly. From each of the selected milk co-operative societies four dairy farmers were selected randomly out of which both Member Co-operative Society (MCS) and Non-member Co-operative Society (NMCS) were two in number. In this way, 60 Member Co-operative Society and 60 Non-member Co-operative Society (total 120 respondents) were selected, which constituted the sample of the present study. Direct face-to-face interview method was followed for the purpose of data collection. The study revealed that dairy farmers belonging to Independent profession are relatively higher in adoption of improved Animal husbandry practices and marketing orientation in MCS but in case of NMCS Service occupation group is comparatively higher than other occupation groups in relation to adoption rate and marketing orientation. The study also revealed that dairy farmers residing at Pucca house were comparatively higher in adoption rate and marketing orientation than other categories of dairy farmers in MCS. But in case of NMCS adoption rate and marketing orientation were higher among the residents of Pucca and Mixed house than the Kutcha house. Dairy farmers belonging to Scheduled Caste were higher in adoption rate and marketing orientation than other caste groups in NMCS.

**Key Words:** Adoption, Co-operative, Caste, House type, Marketing Orientation, Occupation.

### INTRODUCTION

Adoption of any improved technology involves a process in which awareness created, attitudes are changed and favourable conditions for adoption are provided. Wilkening (1953) described the adoption, deciding and acting over a period of time. How latest is the knowledge of a dairy producer about various A.H. practices such as breeding, feeding and management of milch animals determines largely the success or failure of a dairy enterprise. In this context, milk co-operatives have quite ambitious objectives. They not only want to increase the productivity of milch animals but also wish to raise the economic status of rural people at large through increased milk production. To enhance the production potential of our milch animals distributed through out the length and breadth of our country the only way is to introduce improved A.H. technologies for mass adoption and to create the critical and necessary infrastructural facilities vital for adoption of the A.H. practices. Chouhan (1979) noticed positive and highly significant correlation between occupation and milk production with adoption. Daipuria *et al.* (2001) reported that house type had significant association with the adoption of

dairy practices. Mulay and Ray (1965) stated that support from one's caste group was an important legitimizing force for adoption of improved farm practices. Rattan Chand and Gupta (1966) and Jha and Shaktawat (1972) found caste and adoption score of a farmer has no significant association. Chander (1970) found that majority of dairy farmers who are practicing A.I. in their cattle was belonging to higher caste. Desai (1966) observed that caste has no significant relationship with adoption of improved farm practices but in the same year Hundal (1976) found that caste had high association with adoption of improved dairy practices. Singh (1982) and Upadhyay and Gupta (1987) that caste has no significant correlation with the adoption of dairy husbandry and home making practices respectively. Considering this theoretical backup, the present study was carried out to find out the differences between different category within different Independent variables (Occupation, House type, Caste) in relation to adoption of Improved Animal Husbandry Practices and Marketing Orientation of the Dairy Farmers in Member Co-operative Society and Non-member Co-operative Society.



## METHODOLOGY

The North 24-Parganas district was selected purposively. Considering the need for availability of data and usual limitations of a student research project, Gaighata and Bagdah block of North-24-Parganas in West Bengal were purposively selected for the present study. From each of the purposively selected two blocks, 25 percent (Approximately) of the Village Level Milk Co-operative Societies were selected randomly. In this way 10 Village Level Milk Co-operative Societies (25 Percent) from Gaighata Block and 20 (25.64 Percent) from Bagdah Block were selected randomly. Therefore, a total of 30 Village Level Milk Co-operative Societies were selected for the present Study. From each of the selected milk co-operative societies four dairy farmers were selected randomly out of which both Member of Co-operative Society (MCS) and Non-member of Co-operative Society (NMCS) were two in number. In this way, 60 Member Co-operative Society and 60 Non-member Co-operative Society (total 120 respondents) were selected, which constituted the sample of the present study. Before going to final data collection, a pilot study was carried out and accordingly appropriate changes in the construction and sequence of interview

schedule were made. The schedule was then finalized and duplicated. The schedule was administered to the respondents and the responses were recorded. Data were collected through face-to-face interview by the researcher himself. In the present study, the adoption was measured by the adoption index method developed by Dasgupta (1968) and Marketing Orientation of the dairy farmers was measured with help of the component 'marketing orientation' of the management orientation scale developed by Samanta (1977). The analysis of variance (Weatherburn, 1961) was used to see the significance of difference of means of the independent variables in relation to adoption and marketing orientation of the dairy farmers.

## RESULTS AND DISCUSSION

Table-1 depicts that in case of overall adoption index of the dairy farmers 'caste occupation' and 'cultivation' do not differ significantly but they are significantly ( $P < 0.05$ ) lower in adoption rate from 'Independent profession'. There are no significant differences in between 'Service', 'Caste occupation', 'Cultivation' and in between 'Service', 'Independent profession' in relation to overall adoption index.

**Table 1. ANOVA table for Occupation of Member Co-operative Society (N= 58) (Mean  $\pm$  SE)**

Dependent Variable	Occupation			
	Caste Occupation	Independent Profession	Cultivation	Service
Overall Adop. Index	2.836a $\pm$ 0.151	5.125b $\pm$ 0.125	3.397a $\pm$ 0.156	4.103ab $\pm$ 0.099
Marketing Orientation	15.667a $\pm$ 0.333	18.500b $\pm$ 0.500	17.383ab $\pm$ 0.186	17.500ab $\pm$ 0.500
Adop. of AI	4.000a $\pm$ 0.000	8.000b $\pm$ 0.000	4.149a $\pm$ 0.192	5.167a $\pm$ 0.167
Adop. of Deworming	3.333a $\pm$ 0.333	8.000b $\pm$ 0.000	4.234a $\pm$ 0.195	4.667a $\pm$ 0.211
Adop. of Vaccination	3.333a $\pm$ 0.333	8.000b $\pm$ 0.000	4.213a $\pm$ 0.197	5.000a $\pm$ 0.000
Adop. of GFC	2.000a $\pm$ 0.000	0.000b $\pm$ 0.000	2.362a $\pm$ 0.171	3.333a $\pm$ 0.211
Adop. of GFF	3.000a $\pm$ 0.000	1.000b $\pm$ 1.000	3.596a $\pm$ 0.201	4.500a $\pm$ 0.223
Adop. of CF	3.333a $\pm$ 0.333	7.000b $\pm$ 1.000	4.213a $\pm$ 0.195	5.167a $\pm$ 0.167
Adop. UGM feeding	0.000a $\pm$ 0.000	0.000a $\pm$ 0.000	0.106a $\pm$ 0.045	0.000a $\pm$ 0.000
Adop. of Colostrum Feeding	3.667a $\pm$ 0.333	9.000b $\pm$ 1.000	4.404a $\pm$ 0.229	5.167a $\pm$ 0.167

Marketing Orientation of the dairy farmers belonging to 'Caste occupation' differ significantly from 'Independent profession'. But it is almost similar in between 'Cultivation', 'Service' and also there are no significant differences between 'Cultivation', 'Service', 'Caste occupation' and in between 'Cultivation', 'Service', 'Independent profession'. Regarding adoption of AI, farmers belonging to 'Caste occupation', 'Cultivation' and 'Service' are almost similar. But they differ significantly ( $P < 0.05$ ) from 'Independent profession' in relation to adoption of AI. Adoption rate is higher among 'Independent profession' occupation group than 'Caste occupation', 'Cultivation' and

'Service' occupation group. Adoption of deworming, farmers belonging to 'Caste occupation', 'Cultivation' and 'Service' are almost similar. But they differ significantly ( $P < 0.05$ ) from 'Independent profession' in relation to adoption of deworming. Adoption rate is higher among 'Independent profession' occupation group than 'Caste occupation', 'Cultivation' and 'Service' occupation group.

Regarding Adoption of vaccination against contagious diseases like HS, BQ, FMD etc., farmers belonging to 'Caste occupation', 'Cultivation' and 'Service' are almost similar. But they differ significantly ( $P < 0.05$ ) from 'Independent profession' in relation to



adoption of vaccination against contagious diseases. Adoption rate is higher among 'Independent profession' occupation group than 'Caste occupation', 'Cultivation' and 'Service' occupation group. Regarding adoption of green fodder cultivation, farmers belonging to 'Caste occupation', 'Cultivation' and 'Service' are almost similar. But they differ significantly ( $P < 0.05$ ) from 'Independent profession' in relation to adoption of green fodder cultivation. Adoption rate is higher among 'Independent profession' occupation group than 'Caste occupation', 'Cultivation' and 'Service' occupation group.

Regarding adoption of green fodder feeding, farmers belonging to 'Caste occupation', 'Cultivation' and 'Service' are almost similar. But they differ significantly ( $P < 0.05$ ) from 'Independent profession' in relation to adoption of green fodder feeding. Adoption rate is higher among 'Independent profession' occupation group than 'Caste occupation', 'Cultivation' and 'Service' occupation group.

Regarding adoption of concentrate feeding, farmers belonging to 'Caste occupation', 'Cultivation' and 'Service' are almost similar. But they differ significantly ( $P < 0.05$ ) from 'Independent profession' in relation to adoption of concentrate feeding. Adoption rate is higher among 'Independent profession' occupation group than 'Caste occupation', 'Cultivation' and 'Service' occupation group.

In case of adoption of UGM mixture feeding, there was no significant difference between different occupation groups.

Regarding adoption of colostrums feeding, farmers belonging to 'Caste occupation', 'Cultivation' and 'Service' are almost similar. But they differ significantly ( $P < 0.05$ ) from 'Independent profession' in relation to adoption of colostrums feeding. Adoption rate is higher among 'Independent profession' occupation group than 'Caste occupation', 'Cultivation' and 'Service' occupation group.

Table- 2 depicts for Non-member Co-operative Society that in case of overall adoption index of the dairy farmers 'Labour' had significantly ( $P < 0.05$ ) lower adoption rate than 'Service' occupation group. But 'Caste occupation' and 'Cultivation' were more or less similar and there were no significant differences between 'Business', 'Caste occupation', 'Cultivation'; in between 'Business', 'Independent profession'; in between 'Business', 'Labour' and in between 'Business', 'Service' occupation groups in relation to overall adoption index of the dairy farmers.

Regarding Marketing Orientation of the dairy farmers, there were no significant differences between different occupation group dairy farmers.

**Table- 2: ANOVA table for Occupation of Non-member Co-operative Society (N= 60)(Mean  $\pm$  SE)**

Dependent Variable	Occupation					
	Labour	Caste Occupation	Business	Independent Profession	Cultivation	Service
Overall Adop. Index	1.520a $\pm$ 0.110	2.050ab $\pm$ 0.220	2.63abc $\pm$ 0.310	2.950bc $\pm$ 0.420	1.990ab $\pm$ 0.140	3.750c $\pm$ 0.130
Marketing Orientation	14.500a $\pm$ 0.500	15.140a $\pm$ 0.400	15.400a $\pm$ 0.870	15.140a $\pm$ 0.340	14.460a $\pm$ 0.190	16.000a $\pm$ 0.000
Adop. of AI	3.000a $\pm$ 0.000	2.860a $\pm$ 0.400	4.000ab $\pm$ 0.550	4.000ab $\pm$ 0.490	2.810a $\pm$ 0.220	5.000c $\pm$ 0.000
Adop. of Deworming	3.000a $\pm$ 0.000	2.710a $\pm$ 0.290	4.200a $\pm$ 0.490	4.430a $\pm$ 0.480	2.860a $\pm$ 0.220	4.000a $\pm$ 0.000
Adop. of Vaccination	2.000a $\pm$ 0.000	2.140ab $\pm$ 0.260	3.400abc $\pm$ 0.600	4.140bc $\pm$ 0.550	2.540ab $\pm$ 0.230	5.000c $\pm$ 0.000
Adop. of GFC	0.000a $\pm$ 0.000	1.000a $\pm$ 0.310	0.400a $\pm$ 0.240	0.570a $\pm$ 0.370	0.380a $\pm$ 0.090	2.000b $\pm$ 1.000
Adop. of GFF	1.000a $\pm$ 0.000	2.430a $\pm$ 0.3000	1.800a $\pm$ 0.200	2.140a $\pm$ 0.400	1.840a $\pm$ 0.170	4.000b $\pm$ 0.000
Adop. of CF	2.000a $\pm$ 0.000	2.570a $\pm$ 0.300	3.200a $\pm$ 0.200	3.570ab $\pm$ 0.570	2.510a $\pm$ 0.190	5.000b $\pm$ 0.000
Adop. UGM feeding	0.000a $\pm$ 0.000	0.000a $\pm$ 0.000	0.000a $\pm$ 0.000	0.290b $\pm$ 0.180	0.000a $\pm$ 0.000	0.000a $\pm$ 0.000
Adop. of Colostrum Feeding	2.000a $\pm$ 0.000	2.710ab $\pm$ 0.290	4.000bcd $\pm$ 0.550	4.570cd $\pm$ 0.530	3.000abc $\pm$ 0.200	5.000d $\pm$ 0.000

Mean Values with dissimilar superscripts in columns differ significantly ( $P < 0.05$ )

In case of adoption of AI, 'Labour', 'Caste occupation' and 'Cultivation' occupation group is more or less similar and had significantly lower adoption rate than 'Service' occupation group. 'Business' and 'Independent profession' group are more or less similar in adoption of AI and there were no significant differences in between 'Business', 'Independent profession', 'Labour', 'Caste occupation', 'Cultivation' occupation groups. Regarding adoption of deworming, there were no significant differences between different occupation group dairy farmers. Regarding adoption of

vaccination against contagious diseases like HS, BQ, FMD etc. by the dairy farmers, 'Labour' had significantly ( $P < 0.05$ ) lower adoption rate than 'Service' occupation group. But 'Caste occupation' and 'Cultivation' were more or less similar and there were no significant differences in between 'Business', 'Caste occupation', 'Cultivation'; in between 'Business', 'Independent profession'; in between 'Business', 'Labour' and in between 'Business', 'Service' occupation groups in relation to adoption of vaccination against contagious diseases by the dairy farmers.



In case of adoption of green fodder cultivation, farmers belonging to 'Labour', 'Caste occupation', 'Business', 'Independent profession' and 'Cultivation' occupation group are almost similar. But they differ significantly ( $P < 0.05$ ) from 'Service' occupation group in relation to adoption of green fodder cultivation. Adoption rate is higher among 'Service' occupation group than 'Labour', 'Caste occupation', 'Business', 'Independent profession' and 'Cultivation' occupation groups.

Regarding adoption of green fodder feeding, farmers belonging to 'Labour', 'Caste occupation', 'Business', 'Independent profession' and 'Cultivation' occupation group are almost similar. But they differ significantly ( $P < 0.05$ ) from 'Service' occupation group in relation to adoption of green fodder feeding. Adoption rate is higher among 'Service' occupation group than 'Labour', 'Caste occupation', 'Business', 'Independent profession' and 'Cultivation' occupation groups.

In case of adoption of concentrate feeding, farmers belonging to 'Labour', 'Caste occupation', 'Business', 'Independent profession' and 'Cultivation' occupation group are almost similar. But they differ significantly ( $P < 0.05$ ) from 'Service' occupation group in relation to adoption of concentrate feeding. Adoption rate is higher among 'Service' occupation group than 'Labour', 'Caste

occupation', 'Business', 'Independent profession' and 'Cultivation' occupation groups.

Regarding adoption of UGM mixture feeding, there was no significant difference between different occupation group dairy farmers.

Regarding adoption of colostrums feeding, farmers belonging to 'Labour' occupation group had significantly lower adoption rate than 'Service' occupation group. There were no significant differences in between 'Business', 'Independent profession'; in between 'Business', 'Cultivation'; in between 'Business', 'Service' and in between 'Business', 'Caste occupation' group of dairy farmers. At the same time, there were no significant differences between 'Cultivation', 'Independent profession'; in between 'Cultivation', 'Business'; in between 'Cultivation', 'Caste occupation' and in between 'Cultivation', 'Labour' occupation group of dairy farmers.

Table- 3 depicts that overall adoption index. Marketing Orientation, adoption AI, adoption of deworming and adoption of vaccination against contagious diseases by the dairy farmers residing at different house type do not differ significantly in Member Co-operative Society.

**Table 3. ANOVA table for House Type of Member Co-operative Society (N= 60) (Mean  $\pm$  SE)**

Dependent Variable	House Type			
	Hut	Kutch House	Mixed House	Pucca House
Overall Adop. Index	4.120a $\pm$ 0.000	2.798a $\pm$ 0.250	3.507a $\pm$ 0.186	4.141a $\pm$ 0.183
Marketing Orientation	17.500a $\pm$ 0.500	16.846a $\pm$ 0.249	17.242a $\pm$ 0.238	18.250a $\pm$ 0.328
Adop. of AI	5.000a $\pm$ 0.000	3.692a $\pm$ 0.365	4.394a $\pm$ 0.275	5.083a $\pm$ 0.148
Adop. of Deworming	5.000a $\pm$ 0.000	3.692a $\pm$ 0.365	4.394a $\pm$ 0.275	5.000a $\pm$ 0.213
Adop. of Vaccination	5.000a $\pm$ 0.000	3.615a $\pm$ 0.367	4.394a $\pm$ 0.275	5.167a $\pm$ 0.167
Adop. of GFC	3.000bc $\pm$ 0.000	1.307a $\pm$ 0.307	2.212ab $\pm$ 0.173	3.583c $\pm$ 0.228
Adop. of GFF	4.000a $\pm$ 0.000	2.307b $\pm$ 0.444	3.545ab $\pm$ 0.218	4.667a $\pm$ 0.225
Adop. of CF	5.000a $\pm$ 0.000	3.692a $\pm$ 0.365	4.333a $\pm$ 0.259	5.167a $\pm$ 0.167
Adop. UGM feeding	1.000a $\pm$ 0.000	0.000b $\pm$ 0.000	0.061b $\pm$ 0.042	0.083b $\pm$ 0.083
Adop. of Colostrum Feeding	5.000a $\pm$ 0.000	4.077a $\pm$ 0.604	4.667a $\pm$ 0.316	5.167a $\pm$ 0.167

Adoption of green fodder cultivation by the dairy farmers residing at 'Kutch house' differ significantly lower than those residing at 'Pucca house' and 'Hut'. It is also observed that adoption rate is significantly higher among the dairy farmers residing at 'Pucca house' than those residing at 'Mixed house'. There are no significant differences between the dairy farmers residing at 'Kutch house', 'Mixed house' and in between 'Hut', 'Pucca house'. Adoption of green fodder feeding is similar in between the dairy farmers residing at 'Hut', and 'Pucca house'. But adoption rate of farmers residing at 'Hut', and 'Pucca house' is significantly ( $P < 0.05$ ) higher than those residing at 'Kutch house'. Regarding adoption of concentrate feeding, there are no significant differences among the dairy farmers with respect to different house

types. Adoption of UGM mixture feeding by the dairy farmers residing at 'Hut' is significantly ( $P < 0.05$ ) higher than those residing at 'Kutch house', 'Mixed house' and 'Pucca house'. Adoption rate is almost similar among the dairy farmers residing at 'Kutch house', 'Mixed house' and 'Pucca house'. Regarding adoption of colostrums feeding, there are no significant differences among the dairy farmers with respect to different house type.

Table-4 depicts for Non-member Co-operative Society that overall adoption index of the dairy farmers residing at 'Kutch house' was significantly ( $P < 0.05$ ) lower than those residing at 'Mixed house' and 'Pucca house'. But the adoption rate is more or less similar between the dairy farmers residing at 'Mixed house' and 'Pucca house'.



Table- 4. ANOVA table for House Type of Non-member Co-operative Society (N= 60) (Mean  $\pm$  SE)

Dependent Variable	House Type		
	Kutch House	Mixed House	Pucca House
Overall Adop. Index	1.668a $\pm$ 0.127	2.512b $\pm$ 0.222	2.340b $\pm$ 0.196
Marketing Orientation	14.330a $\pm$ 0.230	14.780a $\pm$ 0.270	15.110a $\pm$ 0.270
Adop. of AI	2.440a $\pm$ 0.220	3.520b $\pm$ 0.310	3.320b $\pm$ 0.310
Adop. of Deworming	2.390a $\pm$ 0.200	3.430b $\pm$ 0.330	3.630b $\pm$ 0.240
Adop. of Vaccination	2.170a $\pm$ 0.200	3.000ab $\pm$ 0.350	3.210b $\pm$ 0.350
Adop. of GFC	0.330a $\pm$ 0.140	0.780a $\pm$ 0.170	0.370a $\pm$ 0.17
Adop. of GFF	1.610a $\pm$ 0.180	2.520b $\pm$ 0.220	1.680a $\pm$ 0.220
Adop. of CF	2.110a $\pm$ 0.160	3.040b $\pm$ 0.290	3.050b $\pm$ 0.260
Adop. UGM feeding	0.000a $\pm$ 0.000	0.087a $\pm$ 0.060	0.000a $\pm$ 0.000
Adop. of Colostrum Feeding	2.390a $\pm$ 0.300	2.512b $\pm$ 0.222	2.340b $\pm$ 0.196

Mean Values with dissimilar superscripts in columns differ significantly ( $P < 0.05$ )

Regarding Marketing Orientation of the dairy farmers, there was no significant difference between the residents of different house types. Adoption of AI by the dairy farmers residing at 'Kutch house' was significantly ( $P < 0.05$ ) lower than those residing at 'Mixed house' and 'Pucca house'. But the adoption rate is more or less similar between the dairy farmers residing at 'Mixed house' and 'Pucca house'. Adoption of deworming by the dairy farmers residing at 'Kutch house' was significantly ( $P < 0.05$ ) lower than those residing at 'Mixed house' and 'Pucca house'. But the adoption rate is more or less similar between the dairy farmers residing at 'Mixed house' and 'Pucca house'. Adoption of vaccination against contagious diseases like HS, BQ, FMD etc., by the dairy farmers residing at 'Kutch house' was significantly ( $P < 0.05$ ) lower than those residing at 'Pucca house'. There was no significant difference in between the dairy farmers residing at 'Mixed house', 'Pucca house' and in between 'Mixed house', 'Kutch house'. Regarding adoption of green fodder cultivation by the dairy farmers, there was no significant difference between the residents of different house types. Adoption of green fodder feeding by the dairy farmers residing at 'Kutch house' and 'Pucca house' was significantly ( $P < 0.05$ ) lower than those residing at 'Mixed house'. But the adoption rate is more or less similar between the dairy farmers residing at 'Kutch house' and 'Pucca house'. Adoption of concentrate feeding by the dairy farmers residing at 'Kutch house' was significantly ( $P < 0.05$ ) lower than those residing at 'Mixed house' and 'Pucca house'. But the adoption rate is more or less similar between the dairy farmers residing at 'Mixed house' and 'Pucca house'.

Regarding adoption of UGM mixture feeding by the dairy farmers, there was no significant difference between the residents of different house types. Adoption of colostrum feeding by the dairy farmers residing at 'Kutch house' was significantly ( $P < 0.05$ ) lower than

those residing at 'Mixed house' and 'Pucca house'. But the adoption rate is more or less similar between the dairy farmers residing at 'Mixed house' and 'Pucca house'.

Table- 5 depicts that in case of overall adoption index, dairy farmers of 'Schedule caste' had significant ( $P < 0.05$ ) higher adoption rate than 'Lower caste', 'Artisan caste' and 'Agriculture caste'. But there were no significant differences between 'Lower caste', 'Artisan caste' and 'Agriculture caste' in overall adoption index in Non-member Co-operative Society.

Regarding Marketing Orientation of the dairy farmers there were no significant differences between different caste groups. Adoption of AI by the dairy farmers belonging to 'Schedule caste' had significant ( $P < 0.05$ ) higher adoption rate than 'Lower caste', 'Artisan caste' and 'Agriculture caste'. But there were no significant differences between 'Lower caste', 'Artisan caste' and 'Agriculture caste' in adoption of AI. Adoption of deworming by the dairy farmers belonging to 'Schedule caste' had significant ( $P < 0.05$ ) higher adoption rate than 'Lower caste', 'Artisan caste' and 'Agriculture caste'. But there were no significant differences between 'Lower caste', 'Artisan caste' and 'Agriculture caste' in adoption of deworming. Adoption of vaccination against contagious diseases like HS, BQ, FMD etc. by the dairy farmers belonging to 'Schedule caste' had significant ( $P < 0.05$ ) higher adoption rate than 'Lower caste', 'Artisan caste' and 'Agriculture caste'. But there were no significant differences between 'Lower caste', 'Artisan caste' and 'Agriculture caste' in adoption of vaccination of contagious diseases. Regarding adoption of green fodder cultivation and green fodder feeding by the dairy farmers there were no significant differences between different caste groups. Adoption of concentrate feeding by the dairy farmers belonging to 'Schedule caste' had significant ( $P < 0.05$ ) higher adoption rate than 'Lower caste', 'Artisan caste' and 'Agriculture caste'. But there were no significant



differences between 'Lower caste', 'Artisan caste' and 'Agriculture caste' in adoption of concentrate feeding. Regarding adoption of UGM mixture feeding

and Colostrum feeding by the dairy farmers there were no significant differences between different caste groups.

Table- 5: ANOVA table for Caste of Non-member Co-operative Society (N= 60) (Mean  $\pm$  SE)

Dependent Variable	Caste			
	Schedule Caste	Lower Caste	Artisan Caste	Agriculture Caste
Overall Adop. Index	3.750a $\pm$ 0.000	1.874b $\pm$ 0.308	2.185b $\pm$ 0.565	2.177b $\pm$ 0.129
Marketing Orientation	16.000a $\pm$ 0.000	14.800a $\pm$ 0.490	14.500a $\pm$ 1.500	14.710a $\pm$ 0.170
Adop. of AI	6.000a $\pm$ 0.000	2.800b $\pm$ 0.490	3.000b $\pm$ 1.000	3.060b $\pm$ 0.180
Adop. of Deworming	6.000a $\pm$ 0.000	2.400b $\pm$ 0.240	3.000b $\pm$ 1.000	3.160b $\pm$ 0.2000
Adop. of Vaccination	6.000a $\pm$ 0.000	2.400b $\pm$ 0.240	1.500b $\pm$ 0.500	2.780b $\pm$ 0.200
Adop. of GFC	1.000a $\pm$ 0.000	0.800a $\pm$ 0.490	0.500a $\pm$ 0.500	0.470a $\pm$ 0.100
Adop. of GFF	2.000a $\pm$ 0.000	1.800a $\pm$ 0.490	3.000a $\pm$ 0.000	1.960a $\pm$ 0.150
Adop. of CF	5.000a $\pm$ 0.000	2.400b $\pm$ 0.240	3.000b $\pm$ 1.000	2.710b $\pm$ 0.150
Adop. UGM feeding	0.000a $\pm$ 0.000	0.000a $\pm$ 0.000	0.000a $\pm$ 0.000	0.039a $\pm$ 0.027
Adop. of Colostrum Feeding	4.000a $\pm$ 0.000	2.400a $\pm$ 0.240	3.500a $\pm$ 0.500	3.310a $\pm$ 0.200

Mean Values with dissimilar superscripts in columns differ significantly (P<0.05)

## CONCLUSIONS

From the above study it can be concluded that dairy farmers belonging to Independent profession are relatively higher in adoption of improved Animal husbandry practices and marketing orientation in MCS but in case of NMCS Service occupation group is comparatively higher than other occupation groups in relation to adoption rate and marketing orientation. It

can also be concluded that dairy farmers residing at Pucca house were comparatively higher in adoption rate and marketing orientation than other categories of dairy farmers in MCS. But in case of NMCS adoption rate and marketing orientation were higher among the residents of Pucca and Mixed house than the Kutcha house. Dairy farmers belonging to Scheduled Caste were higher in adoption rate and marketing orientation than other caste groups in NMCS.

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