



Potential of livestock production systems: Explaining employability and milk productivity through multivariate typology

SANTOSH S PATHADE¹, B P SINGH^{1✉}, MAHESH CHANDER¹, D BARDHAN¹, MED RAM VERMA¹
 and Y P SINGH¹

ICAR-Indian Veterinary Research Institute, Izatnagar, Uttar Pradesh 243 122 India

Received: 29 September 2020; Accepted: 11 May 2022

Supplementary Table 1. Spearman correlation between independent variables with the productivity of milk animals and employment generation

Particular	Correlation coefficient		
	Productivity of milk animals (Milk yield index)	Employment status (Man-days)	Gross annual income
Education	0.204**	-1.39**	0.003
Land holding	0.531**	-0.13	0.71**
Family size	0.05	0.06	-0.051
Total SAU	0.719**	0.36**	0.40**
Flock size	-6.12**	0.326**	0.18**
Occupation	0.35**	0.035	0.33**
Farming experience	0.314**	-2.61**	0.17**
Scientific orientation	0.019	0.032	-2.34**
Economic motivation	0.015	0.072	0.028
Innovative proneness	0.022	0.43	0.12**
Knowledge of dairy technology	0.583**	-1.50**	0.19**
Knowledge of goat production practices	-5.58**	0.30**	0.06
Adoption of technology	0.531**	0.06	0.61**
Income from dairy production system	0.71**	0.46*	0.43**
Income from goat production system	-0.58**	0.29**	0.23**
Income from agriculture	0.52**	-0.03	0.724**

**P<0.01; *P<0.05.

Supplementary Table 2. Multiple regression analysis of productivity of milk animals and employment generation with a gross annual income

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-83060.053	34005.347		-2.443	.015
Employment (man-days)	9095.321	1961.046	7.877	4.638**	.000
Employment in duration (hrs/day)	230538.637	49536.851	7.907	4.654**	.000
Milk yield index	2787.269	312.321	.400	8.924**	.000

Dependent Variable: Annual income. R², 0.22; F, 38.92; P<0.01.

Supplementary Table 3. Multiple regression analysis of independent variables with employment generation (Man-days)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	137.353	73.000		1.882	.061
Landholding	8.370	3.654	.184	2.290*	.023
Total SAU	5.503	5.169	.105	1.065**	.006
Flock size	5.328	1.826	.453	2.918**	.004
Occupation	-3.403	5.151	-.046	-.661	.509
Knowledge about dairy production technology	-4.568	4.594	-.086	-.994	.321
Knowledge of goat production practices	4.112	7.070	.048	.582	.561
Adoption of technology	2.598	.538	1.085	1.113*	.026
Cluster 1	16.644	42.887	.056	.388	.698
Cluster 3	-32.280	51.612	-.077	-.625	.532
Cluster 4	-133.273	40.256	-.278	-3.311**	.001
Scientific orientation	26.185	18.025	.073	1.453	.147
Education	-.969	4.165	-.012	-.233	.816
Farming experience	-5.235	2.861	-.102	-1.830	.068
Family size	3.333	3.140	.051	1.062	.289

Dependent Variable: Employment. R^2 , 0.15; * $P < 0.05$; ** $P < 0.01$.