

MEASUREMENT OF SKILLS OF FARM-WOMEN IN MANAGEMENT OF MILCH ANIMALS

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ABSTRACT

A test was developed to measure skills of farmwomen in management of milch animals. Management of milch animals accounts a number of activities like milking, feeding, cleaning, housing and treatment etc. Management activities were selected for which no test was available and were clubbed together under the head of management of milch animals. All these activities were further splitted into their recommended sequential steps. These steps will become observation points at the time of actually measuring the competence of the performer of the skill in terms of accuracy. The experts were asked to assign scores to each step on its relative importance and operational difficulty in carrying out. The mean scores were calculated to get the final assigned score for each step. The coefficients of reliability and validity were found to be 0.93 and 0.96 respectively.

Majority of the working women have to work at their homes as housewives, their participation in farm activities is as important as that of men. In many parts of our country, management of livestock is attended exclusively by women.

Puri (1971) reported that bringing fodder from field, chaffing, preparing feed for cattle, cleaning cattle shed, making cow-dung cakes, preparing bitora and compost making which are the animal husbandry related tasks are performed by the farm women. Many training programmes for the improvement of skills of farm women in agriculture and animal husbandry practices have been started for providing necessary training to the farm women, their skills are to be measured. Keeping above points in view, a test was developed to measure skills of farm women in management of milch animals.

Management of milch animals includes activities like milking, feeding, cleaning, housing, treatment etc. for some of the activities performance tests are available; so only those activities of management were selected, for which no test was available. These activities were clubbed under the head of management of milch animals.

Skill is operationalized as the ability to perform an animal husbandry operation accurately with minimum time, energy and at ease.

PROCEDURE OF PERFORMANCE TEST

For measurement of skills in management of milch animals a performance test was developed. The procedure suggested by Super (1962) and Wiersma

and Jurs (1976) for measuring psychomotor variables was taken as a guideline for this purpose. The respondents were asked to perform a given animal husbandry activity and their performance was observed and scored with the help of performance test. The major steps in the development of the performance test for management of milch animals are given below.

(a) Listing of Major Activities under Management of Milch Animals

All the major activities under management of milch animals were listed out, leaving those activities on which performance test were already available. The activities performed under management of milch animals are :—

- (i) Giving drinking water to animals.
- (ii) Tying and placing the animals.
- (iii) Bathing the animals.
- (iv) Cleaning of the animal shed.
- (v) Care of pregnant animals.
- (vi) Care of sick animals.

(b) Task Analysis

Task is related to a particular operation to be performed by an individual. Craigh and Bibtel (1987) explained task as "Job analysis is a systematic, intensive, and direct method of obtaining information about a job. It involves the separation of a job into major components and then identifying the detailed element that pertains to each component".

Each activity of management of milch animals, viz. giving drinking water to animals, bathing the animal, etc. were further divided into tasks which were listed in a systematic order.

(c) Scoring Procedure

After splitting each of the animal husbandry activity it was referred to 50 experts to assign marks out of 100 keeping in view its relative importance and operational difficulty involved in carrying out the particular operation.

Scores given by all the experts to each step were tabulated and mean scores in respect of each step were calculated for both the dimensions i.e. "Difficulty index" and "Relative importance" separately. These mean scores of both the dimensions were then pooled and divided by 2 for getting the final assigned score to each step. These scores became the maximum attainable marks for each step during the time of observation (Table 1).

The coefficients of reliability and validity for the skill test for management of milch animals were found to be 0.93 and 0.96 respectively, thus indicating high reliability and validity of the test.

Table 1. Scores for each step involved in management of milch animals

Task	Mean of relative importance out of 100 (N=50)	Mean of difficulty index out of 100 (N=50)	Pooled scores out of 100 (N=50)
1	2	3	4
Giving drinking water to animals			
Tasks involved are	(15.97)	(13.59)	(14.78)
Selection of a proper utensil/drinking pan	1.54	1.18	1.36
Proper washing of the utensil/water tank/ container	1.82	1.56	1.69
Selection of water	2.59	2.07	2.33
Collecting the water	1.01	1.11	1.06
Selecting a proper place for drink	1.04	1.00	1.02
Placing the drinking pan to the animal	1.09	0.97	1.03
Letting the animal to drink <i>ad lib.</i>	1.77	0.99	1.38
Removing the pan and tying the animal	1.08	1.04	1.06
Cleaning the place of drinking	1.20	1.04	1.12
Cleaning the utensil after drinking	1.23	1.45	1.34
Frequency of giving water to animals	1.60	1.18	1.39
Tying and placing of animals			
Tasks involved are	(14.25)	(13.89)	(14.07)
Selection of material for tying the animal	1.05	0.93	0.99
Selection of rope or chain	0.94	0.94	0.94
Deciding length of the tying material	0.99	0.87	0.93
Selecting a hook for attaching the chain or rope	0.77	0.91	0.84
Following method of tying	1.22	1.12	1.17
Selection of a place	1.52	0.66	1.09
Placing/keeping the animal in place	1.77	1.69	1.73
Letting the animal in surrounding area	0.93	1.13	1.03
Keeping the floor of the shed	1.51	1.65	1.58
Placing/tying the animal at nearby area of owner's habitat	0.81	1.03	0.92
Proper drainage in the shed	1.33	1.55	1.44
Maintaining proper sanitation	1.41	1.41	1.41
Bathing the animals			
Tasks involved are	(13.04)	(13.42)	(13.23)

Contd.—

1	2	3	4
Selecting a time for bathing	1.27	0.75	1.01
Selection of a place for bathing	1.34	1.32	1.33
Selection of a source of water	1.89	1.71	1.80
Selection of a tool for bathing	0.75	0.81	0.78
Using the skin disinfectant for removal of ectoparasite	1.29	1.43	1.36
Using a grooming brush during bathing	0.95	1.25	1.10
Using a proper method of bathing	0.78	0.94	0.86
Taking/keeping the animal at a dry place after bathing	1.20	1.20	1.20
Drying the animal with some cotton cloth	0.60	0.96	0.78
Applying oil on the animal's body	0.69	0.89	0.79
Cleaning the place of bath	1.32	1.06	1.19
Cleaning the tools after bathing	0.96	1.10	1.03
Cleaning of animal shed			
Tasks involved are	(16.69)	(17.25)	(16.97)
Selection of time of cleaning	1.41	1.13	1.27
Deciding proper frequency of cleaning	1.34	1.28	1.31
Using method of cleaning	1.74	1.90	1.82
Using disinfectant while cleaning	1.88	1.86	1.87
Spraying/dusting of insecticide	1.66	1.98	1.82
Selection of tool for cleaning	1.17	1.01	1.09
Selection of place for disposal of dung	1.70	1.46	1.58
Cleaning and white washing of walls	1.46	1.82	1.62
Cleaning of the roof of the shed	1.27	1.59	1.43
Selection of method for disposal of dung and urine	1.58	1.56	1.57
Cleaning and disinfection of equipments	1.52	1.66	1.56
Care of pregnant animals			
Tasks involved are	(21.04)	(21.08)	(21.06)
Feeding of ration to pregnant animals	2.84	2.38	2.61
Feeding of mineral-vit-feed supplement	2.00	1.80	1.90
Giving extra ration to pregnant animals	1.99	1.85	1.92
Giving salt to pregnant animals	1.58	1.36	1.47
Keeping the animal in place with plenty of clean bedding	2.03	2.25	2.14
Handling of pregnant animals	1.80	1.96	1.88
Taking care of pregnant animals not to run fast or walk long distances	1.58	1.40	1.49

Contd.—

1	2	3	4
Allowing pregnant animal to do exercise	1.30	1.66	1.48
Segregating the pregnant animals	1.55	1.59	1.57
Keeping record of service of animals	1.60	1.60	1.60
Deworming the animal	1.17	1.17	1.17
Preventive measures for prolapse of reproductive organs	1.60	2.06	1.83
Care of sick animals			
Tasks involved are	(19.01)	(20.77)	(19.89)
Keeping the sick animal in separate	3.30	3.46	3.38
Keeping the sick animal in isolation away from the healthy animals	1.80	1.72	1.76
Regular check up of the sick animal	1.74	1.82	1.78
Timely medication of the sick animal	1.61	1.53	1.57
Proper feeding to the sick animal	1.39	1.53	1.46
Proper rest to the sick animal	1.23	1.17	1.20
Disinfection of the surrounding place	1.26	1.62	1.44
Providing the sick animal with clean drinking water	1.27	1.21	1.24
Grooming and sponging	1.12	1.28	1.20
Handling of animal during sickness	0.94	1.12	1.03
Segregating the equipments used for caring of sick animals	1.05	1.33	1.19
Disinfection of the equipments used for sick animals	1.00	1.28	1.14
Record of the disease	1.30	1.70	1.50
Total Marks	100	100	100

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