P-ISSN: 2618-0723
E-ISSN: 2618-0731

NAAS Rating: 5.04
www.extensionjournal.com

International Journal of Agriculture Extension and Social Development

Volume 8; SP-Issue 4; April 2025; Page No. 103-108

Received: 11-02-2025
Accepted: 18-03-2025

Indexed Journal
Peer Reviewed Journal

Studies on different calf rearing management practices of cattle in Hardoi district of Uttar Pradesh

[1]Ashwani Kumar Singh, [2]Nutan Kumari, [3]Gaurav Ugale, [4]Ved Prakash Gupta, [5]Shiv Bachan, [6]Gyanendra Singh, [7]Abhishek Singh, [8]Pooja Yadav, [9]Sandeep Kumar and [10]Sarvmangal Verma

[1, 8, 9, 10]Research Scholar, Department of Animal Husbandry and Dairying, College of Agriculture, Chandra Shekhar Azad University of Agriculture and Technology, Kanpur, Uttar Pradesh, India

[2, 3]Research Scholar, Department of Animal Husbandry and Dairying, SHUATS, Uttar Pradesh, India

[4]Assistant Professor, Department of Soil Conservation, Government Degree College, Jakhini, Varanasi, Uttar Pradesh, India

[5] Assistant Professor, Department of Animal Husbandry and Dairying, Udai Pratap Autonomous College, Varanasi, Uttar Pradesh, India

[6]Research Scholar, Bhagwant University, Ajmer, Rajasthan, India

[7]Research Scholar, Department of Agricultural Economics, College of Agriculture, Chandra Shekhar Azad University of Agriculture and Technology, Kanpur, Uttar Pradesh, India

DOI: https://www.doi.org/10.33545/26180723.2025.v8.i4Sb.1833

Corresponding Author: Pooja Yadav

Abstract

This study evaluates the cattle feeding and management practices in Hardoi district, Uttar Pradesh, India, focusing on breed composition, housing conditions, and feed management. Data were collected from 150 households using structured questionnaires, and statistical analysis was conducted using SPSS to determine correlations between feeding practices and cattle productivity. Results revealed a predominance of indigenous breeds with limited crossbreeds, highlighting challenges in productivity. Housing conditions were suboptimal, affecting cattle health and performance. Feed management was characterized by reliance on crop residues and inadequate nutritional supplementation. The study underscores the need for integrated approaches to enhance cattle productivity, including improved feed strategies, better housing, and breed enhancement programs. Recommendations include promoting awareness about balanced feeding, capacity-building for farmers, and government support for modern dairy practices. This research provides a foundation for policy interventions to strengthen the livestock sector in the region.

Keywords: Cattle feeding practices, livestock management, breed composition, indigenous breeds

Introduction

The feeds and fodders in country have a remarkable gap between availability and requirement. The annual requirements of feeds and fodders are estimated to be 96 million tonnes of concentrate, 530 million tonnes of dry fodders and 880 million tonnes of green fodder. However, only 61 million tonnes of concentrate, 408 million tonnes of dry fodder and 596 million tonnes of green fodder are available. The gap between the availability and requirement of the concentrate is very wide and there is a shortage of 36 percent of concentrate, 23 percent dry fodder and 32 percent green. (Estimated based on past livestock censuses published by the Directorate of Economic & Statistics and Department of Animal Husbandry & Dairying-2020). The variation in the productivity of cows and buffaloes in different seasons is a universal phenomenon and caused by the variation in the breeding cycle of the animal, the environmental factors like temperature, humidity and the quality and quantity of feed and fodders supplied to the animals. Whatever, good genetic ability of buffaloes, it is no use unless they are not fed and managed adequately to maximize the milk production. A dairy animal with a good genotype represents a factory of converting large quantities of unusable roughages into milk and butter fat. The feed conversion efficiency of the dairy animal varies from breed to breed. Dairy animals need feed for maintenance and growth as well as for milk production. Particularly, in the first lactation a cow may be still growing and thus may need nutrients to sustain growth rate, maintenance and the milk production.

Cattle (*Bos taurus*) are large, domesticated, bovid ungulates widely kept as livestock. They are prominent modern members of the subfamily *Bovidae* and the most widespread species of the genus Bos. Mature female cattle are called cows and mature male cattle are bulls. Cattle are commonly raised for meat, for dairy products, and for leather. As draft animals, they pull carts and farm implements. In India, cattle are sacred animals within

Hinduism, and may not be killed. Small breeds such as the miniature Zebu are kept as pets. Taurine cattle are widely distributed across Europe and temperate areas of Asia, the Americas, and Australia. Zebus are found mainly in India and tropical areas of Asia, America, and Australia. Sanga cattle are found primarily in sub-Saharan Africa. These types, sometimes classified as separate species or subspecies, are further divided into over 1,000 recognized breeds.

Cattle are large artiodactyls, mammals with cloven hooves, meaning that they walk on two toes, the third and fourth digits. Like all bovid species, they can have horns, which are unbranched and are not shed annually. Coloration varies with breed; common colours are black, white, and red/brown, and some breeds are spotted or have mixed colours. Bulls are larger than cows of the same breed by up to a few hundred kilograms. Cattle are ruminants, meaning their digestive system is highly specialized for processing plant material such as grass rich in cellulose, a tough carbohydrate polymer which many animals cannot digest. In cattle, temperament or behavioural disposition can affect productivity, overall health, and reproduction. Five underlying categories of temperament traits have been proposed: shyness-boldness, exploration-avoidance, activity, aggressiveness, and sociability. There are many indicators of emotion in cattle. Holstein-Friesian heifers that had made clear improvements in a learning experiment had higher heart rates, indicating an emotional reaction to their own learning. After separation from their mothers, Holstein calves react, indicating low mood. Similarly, after hot-iron dehorning, calves react to the post-operative pain. The position of the ears has been used as an indicator of emotional state. Cattle can tell when other cattle are stressed by the chemicals in their urine. Cattle are gregarious, and even short-term isolation causes psychological stress. When heifers are isolated, vocalizations, heart rate and plasma cortisol all increase. When visual contact is re-instated, vocalizations rapidly decline; heart rate decreases more rapidly if the returning cattle are familiar to the previously isolated individual. Mirrors have been used to reduce stress in isolated cattle. The average sleep time of a domestic cow is about 4 hours a day. Cattle do have a stay apparatus, but do not sleep standing up, they lie down to sleep deeply.

Total population of cattle in Hardoi district including indigenous and exotic is about 419996 animals. Total population of indigenous cattle is about 370267 animals in which total female cattle population is about 294010 animals and total male animal population is about 76257. Total population of exotic cattle is about 49729 animals in which total female cattle population is about 42143 animals and total male animal population is about 7586.

Materials and Methods

This chapter deals with the aspect for conducting a study in order to achieve the objectives of the work program like research site and sampling, data collection techniques and tools by using interview schedule, interview guide and direct observations method and feed sample takes for observation of feed ingredients also by using laboratory method. The statistical analysis method used in concluding the present study. The materials and methods used in applied to the present study are described under the following sub- sections. The details related to research material used and methodology adopted in this investigation of work is given hereafter under the following heads. Existing Feeding Management of Calves *viz*. Attendance During Calving, Timing of Calf Feeding, Calf Suckling Practices, Frequency of Milk Feeding, Teats Allowed for Suckling, Duration of Weaning, Time of Dry Fodder Provision, Time of Green Fodder Provision, Time of Concentrate Provision. General Management Practices of Calves *viz*. Cleaning and Caring of Calves by Farmer Type, Cleaning of Calves After Birth, Navel Cord Care: Ligation and Disinfection, Placenta Disposal Methods, Deworming Practices, Dehorning Practices of Calves, Castration Practices of Male Calves, Use of Bedding Material in Winter and Calf Insurance Coverage.

Table 1: Detail of surveyed area

District Hardoi (U.P.)					
S. No.	**Hardoi tehsil**	**Shahabad tehsil**	**Bilgram tehsil**	**Sandila tehsil**	**Sawayajpur tehsil**
1.	Ahirori	Ambari	Sohara	Behender Kala	Bhagwantpur
2.	Badauli	Anjana	Chandpur	Hasanapur	Chanduapur
3.	Damandi	Chandauli	Balenda	Bindaura	Daulatpur
4.	Gopalpur	Fattepur	Durgaganj	Kahchari	Gurdhara
5.	Barela	Hariharpur	Shyampur	Jarha	Kaitha
6.	Dularpur	Hara	Bhengaon	Atrauli	Madnapur
7.	Govindpur	Sujauli	Harpalpur	Bahuty	Nizampur
8.	Mahimapur	Agampur	Kothawan	Baheriya	Rudrapur
9.	Akohara	Baburhai	Atwaali mardanpur	Dilawar nagar	Saidapur
10.	Barkatpur	Dariyapur	Chandauli	Dhikuhny	Semaria
11.	Dulhapur	Naseerpur	Kherwa	Balamau	Arjunpur Pansala
12.	Katarpur	Udhranpur	Kursath khurd	Nirmapur	Bhawanipur
13.	Bhawanipur	Sidhauli	Bansa	Khajohna	Dayalpur
14.	Gangapur	Anjhi	Bikapur	Terwa Dahigawan	Haraiya
15.	Malihamau	Dhawar	Herwal	Shamshpur	Mastapur
16.	Ramapur	Kapoorpur	Mahmoodpur	Atamau	Ram nagar
17.	Dadwani	Lalpur	Bagh Rai	Gahira	Shyampur
18.	Hariharpur	Nagariya	Nasirpur	Kakrauli	Surjupur
19.	Adampur	Pothwa	Saida pur	Kiratpur	Tikar
20.	Karanpur	Todarpur	Barauli	Mahatwana	Muthauli

Recording observations

In view of objectives of the study, necessary data were collected, tabulated and analysed. The findings of the study have been presented in this chapter in accordance of objectives set forth for the study. The findings are being presented under following sub heads:

Calf rearing management practices

Existing feeding management of calf

Attended the cow at the time of calving

It was concluded that data indicated in table-1 mostly 86, 92, 90, 91 and 94 percent of respondents were attended the cow at the time of calving in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively, whereas 14, 08, 10, 09 and 06 percent of respondents did not attend the cow at the time of calving in Hardoi, Shahabad, Bilgram,

Sandila and Sawayajpur tehsils, respectively. Overall majority (90.6%) of respondents were attended the cow at the time of calving followed by (9.4%) did not attend the cow at the time of calving.

Time of calf feeding

Feeding of colostrum to calves after the placenta is shed was allowed by 62, 64, 56, 54 and 63 percent of respondents while 17, 18, 19, 21 and 18 percent of respondents were feeding colostrum immediate after birth to calves and 21, 18, 25, 25 and 19 percent of respondents were feeding colostrum when the calf stand on its feet in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively. Overall, it was observed that majority of the respondents allowed colostrum to calves after the placenta is shed (59.8%) followed by feeding colostrum when the calf stand on its feet (21.6%) and feeding colostrum immediate after birth to calves (18.6%) in the study area. The present findings are contrary with the findings of Roy and Meena (2020) [16], they found that all respondents provide colostrum to new born calf within two hours of birth.

Calf is allowed to suckle

Suckling of calves before milking was allowed by 00, 00, 00, 00 and 00 percent of respondents while 26, 24, 22, 28 and 25 percent of respondents were suckling of calves after milking and 74, 76, 78, 72 and 75 percent of respondents allow to suckling of calves by both (before milking+ after milking) in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively. Overall, it was observed that majority of the respondents allowed by both (before milking+ after milking) 61.78 percent suckling followed by after milking method of suckling (25%) and after milking method of suckling (00%) by calves in the study area. Present findings are similar to the results reported by Sabapara *et al*. (2015) [11] and Kumar and Mishra (2011) [15].

Time of milk feeding

It was found in the study that 84, 88, 90, 87 and 86 percent of respondents were allowed to suckle their calf two times in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively, whereas 44, 42, 34, 48 and 46 percent of respondents were allowed to suckle their calf three times in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively. Overall, it was observed that majority of the respondents allowed two times feeding of milk to the calves (87%) followed by three times feeding of milk to the calves (13%) in the study area.

Teats allowed for suckling

It was found that 56, 58, 66, 52 and 54 percent of the respondents allowed the calves to suckle only one teat, whereas 44, 42, 34, 48 and 46 percent of the respondents allowed two teats c. Overall majority (57.2%) of respondents allowed the calves to suckle only one teat followed by 42.8 percent of respondents allowed two teams in the study area. Present findings are similar to the results reported by Divekar and Saiyed (2008) [3] and Prajapati *et al*. (2017) [4].

Duration of weaning of calf

It was observed that 00, 00, 00, 00 and 00 percent of respondents practiced weaning of calves just after birth, while 66, 72, 71, 74 and 69 percent of respondents practiced weaning of calves at the age of 3 months and only 34, 28, 29, 26 and 31 percent of the respondents were not practicing weaning of calves in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively. Overall majority (70.4%) of respondents practiced weaning of calves at the age of 3 months followed by never weaned (29.6%) and (00.00%) of respondents were practiced weaning of calves just after birth of calves in the study area. The present results were similar to Rathore *et al*. (2010) [13], Prajapati *et al*. (2017) [4] who revealed that all the farmers followed weaning of calves at the age of three months.

Time of dry fodder provided at age

It was found that only 00, 00, 00, 00 and 00 percent of respondents giving dry fodder within one month of age of calves, whereas about 18, 20, 14, 17 and 16 percent of respondents giving dry fodder after attaining the age of one month, about 32, 37, 28, 29 and 31 percent of respondents started giving at the age of 2 months in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively. Majority of respondents 50, 53, 58, 54 and 53 percent of respondent started giving green fodder after attaining the 3 months of age in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively. Overall majority (53.6%) of the respondents started giving green fodder after attaining age of three months followed by (29.4%) respondents started after attaining age of two month, (17%) of respondents started at the age of one month and (00.00%) of respondents started after attaining age of within one month in the study area.

Time of green fodder provided at age

It was found that only 09, 10, 13, 08 and 11 percent of respondents giving green fodder within one month of age of calves, whereas about 37, 29, 31, 32 and 26 percent of respondents giving green fodder after attaining the age of one month, majority of respondents 42, 39, 40, 38 and 44 percent of respondents started giving at the age of 2 months in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively. About 12, 22, 16, 22 and 19 percent of respondent started giving green fodder after attaining the 3 months of age in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively. Overall majority (40.6%) of the respondents started giving green fodder after attaining age of 2 months followed by (31%) respondents one months of age, (18.2%) of respondents started at the age of 3 months and only (10.2%) of respondents started at the age of within one month in the study area. The result is similar with the findings of Sinha *et al.* (2010) [17] Bareilly district of Uttar Pradesh and Yadav *et al*. (2015) [18] in Varanasi district of Uttar Pradesh.

Time of concentrate provided at age

It was found that only 00, 00, 00, 00 and 00 percent of respondents giving concentrates within one month of age of calves, whereas about 00, 00, 00, 00 and 00 percent of respondents giving concentrates after attaining the age of one month, about 22, 21, 18, 19 and 17 percent of respondents started giving at the age of 2 months in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils,

respectively. Majority of respondents 78, 79, 82, 81 and 83 percent of respondent started giving concentrate after attaining the 3 months of age in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively. Overall majority (80.6%) of the respondents started giving green fodder after attaining age of 3 months followed by (19.4%) respondents two months of age, (00.00%) of respondents started at the age of 3 months and (00.00%) of respondents started at the age of within one month in the study area.

Table 2: Existing feeding management of calf

S. No.	Particulars	Hardoi (100)	Shahabad (100)	Bilgram (100)	Sandila (100)	Sawayajpur (100)	Total farmers (500)	Percent %
1	**Attended the cow at the time of calving**							
(a)	Yes	86	92	90	91	94	453	90.6
(b)	No	14	08	10	09	06	47	9.4
2	**Time of calf feeding**							
(a)	After the placenta is shed	62	64	56	54	63	299	59.8
(b)	Immediately after the birth	17	18	19	21	18	93	18.6
(c)	When the calf stands on its feet	21	18	25	25	19	108	21.6
3	**Calf is allowed top suckle**							
(a)	Before milking	00	00	00	00	00	00	00
(b)	after milking	26	24	22	28	25	125	25
(c)	Both (a +b)	74	76	78	72	75	375	75
4	**Time of milk feeding**							
(a)	Two time	84	88	90	87	86	435	87
(b)	Three time	16	12	10	13	14	65	13
5	**Teats allow for suckling**							
(a)	One teat	56	58	66	52	54	286	57.2
(b)	Two teats	44	42	34	48	46	214	42.8
6	**Duration of weaning of calf**							
(a)	Weaning (just after birth)	00	00	00	00	00	00	00
(b)	Weaing calf at the age of 3 months	66	72	71	74	69	352	70.4
(c)	Never weaned	34	28	29	26	31	148	29.6
7	**Time of dry fodder provided at age**							
(a)	Within 1 month	00	00	00	00	00	00	00
(b)	After 1 month	18	20	14	17	16	85	17
(c)	After 2 months	32	27	28	29	31	147	29.4
(d)	After 3 months	50	53	58	54	53	268	53.6
8	**Time of green fodder provided at age**							
(a)	Within 1 month	09	10	13	08	11	51	10.2
(b)	After 1 month	37	29	31	32	26	155	31
(c)	After 2 months	42	39	40	38	44	203	40.6
(d)	After 3 months	12	22	16	22	19	91	18.2
9	**Time of concentrate provided at age**							
(a)	Within 1 month	00	00	00	00	00	00	00
(b)	After 1 month	00	00	00	00	00	00	00
(c)	After 2 months	22	21	18	19	17	97	19.4
(d)	After 3 months	78	79	82	81	83	403	80.6

General management practices of calf

Cleaning and caring of calves by the type of farmers

It was observed that 56, 74, 61, 48 and 62 percent of male respondents follow cleaning and caring of calves after calving, whereas 44, 26, 39, 52 and 38 percent of female respondents follow cleaning and caring of calves after calving in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively. Majority of male respondents (60.2%) follow cleaning and caring of calves after calving followed by only 39.8% of female respondent follow cleaning and caring of calves after calving in the study area. Present findings are supported by Rathore *et al*. (2010) [13], Kumar and Mishra (2011) [15] and Prajapati *et al*. (2017) [4] in their respective study area.

Cleaning of calves after birth

It was observed that 92, 89, 93, 94 and 91 percent respondents follow cleaning of calf after calving whereas 08, 11, 07, 06 and 09 percent respondents don't follow cleaning of calf after calving in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively. Majority of respondents (91.8%) follow cleaning of calf after calving followed by only 8.2% of respondent don't follow cleaning of calf after calving in the study area. Present findings are supported by Rathore *et al*. (2010) [13], Kumar and Mishra (2011) [15] and Prajapati *et al*. (2017) [4] in their respective study area.

Cut and disinfect the navael cord of calf

It was observed that 56, 68, 67, 73 and 66% respondents practice ligation/cutting and disinfection of the navel cord whereas 44, 32, 33, 27 and 34 percent respondents did not practice ligation/ cutting and disinfection of the navel cord in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively. It was noticed that in the entire study area most of the respondents (66%) practice ligation/cutting

and disinfection of the navel cord and only 34% of the respondents were not practicing due to lack of knowledge and awareness about the importance of ligation of naval cord. Similar findings were reported by Gill and Saini (2008) [6], Yadav *et al.* (2016) [7] and Godara *et al*. (2017) [8], they reported that majority of dairy farmers did not practice ligation/cutting and disinfection of the navel cord in the study area.

Disposal of placenta

It was observed that 45, 52, 54, 59 and 43 percent respondents follow deep buried for the disposal of placenta, whereas 55, 48, 46, 41 and 57 percent respondents follow out skirt in common land for the disposal of placenta in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively. Majority of respondents (50.6%) follow deep buried for the disposal of placenta followed by only (49.4%) of respondent follow out skirt in common land for the disposal of placenta in the study area.

Deworm of calves

It was found that 68, 75, 72, 74 and 76 percent of respondents were practicing deworming of calves whereas 32, 25, 28, 26 and 24 percent of respondents were not practicing deworming of calves in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively. Overall (73%) of respondents were practicing deworming of calves followed by (27%) percent of respondents were practicing in the study area. The study is agreement with the findings of Kumar *et al.* (2018) [10] and contrary with the findings of Sabapra *et al*. (2015) [11].

Dehorning practices of calves

The results revealed that 11, 09, 14, 08 and 07 percent of respondents were practicing dehorning of calves in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively, whereas majority 89, 91, 86, 92 and 93 percent of respondent were not practicing in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively. Overall majority (90.2%) of respondent were not practicing dehorning of calves followed by only 9.8% were practicing in this area. The Present observations are in accordance with the results recorded by Gupta *et al.* (2008) [9] reported that only one fourth (26.20 percent) of the farmers followed disbudding of calf. These findings are contrary with Malik *et al*. (2005) [12] who revealed that majority (82.0 percent) of the respondents followed the disbudding practice.

Castration of calves

The results revealed that only 2, 00, 03, 00 and 01 percent of respondents were practicing castration of male calves in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively, whereas majority 98, 100, 97, 100 and 99 percent of respondent were not practicing in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively. Overall majority (98.8%) of respondent were not practicing castration of male calves followed by only (1.2%) were practicing in this area.

Bedding material used for cattle in winter

The results obtained revealed that majority 97, 97, 95, 96 and 94 percent of respondents were using bedding material for cattle in winter in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively, whereas only 06, 03, 05, 04 and 06 percent of respondent were not using bedding material for cattle in winter in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively. Overall majority (95.2%) of respondent were using bedding material for cattle in winter followed by only (4.8%) were not using bedding material for cattle in winter in the study area.

Insurance of calf

The results revealed that only 12, 14, 08, 07 and 11 percent of respondents had insurance of their calf in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively, whereas majority 88, 86, 92, 93 and 89 percent of respondent had not insurance of their calf in Hardoi, Shahabad, Bilgram, Sandila and Sawayajpur tehsils, respectively. Overall majority (89.6%) of respondents had not insurance of their calf followed by only (10.4%) had insurance of their calf in the study area.

Table 3: General management practices of calf

S. No	Particulars	Hardoi (100)	Shahabad (100)	Bilgram (100)	Sandila (100)	Sawayajpur (100)	Total farmers (500)	Percent %
1	**Cleaning & caring of calves by the type farmers**							
(a)	Male	56	74	61	48	62	301	60.2
(b)	Female	44	26	39	52	38	199	39.8
2	**Cleaning of calves after birth**							
(a)	Cleaning calves	92	89	93	94	91	459	91.8
(b)	Not practice cleaning	08	11	07	06	09	41	8.2
3	**Cut & disinfect the naval cord of calf**							
(a)	Yes	56	68	67	73	66	330	66
(b)	No	44	32	33	27	34	170	34
4	**Disposal of placenta**							
(a)	Deep buried	45	52	54	59	43	253	50.6
(b)	Out skirt in common land	55	48	46	41	57	247	49.4
5	**De-worm of calf**							
(a)	Practices	68	75	72	74	76	365	73
(b)	Not practices	32	25	25	26	24	135	27
6	**Dehorning practices of calf**							
(a)	Yes	11	09	14	08	07	49	9.8
(b)	No	89	91	86	92	93	451	90.2

7	**Castration of calf**							
(a)	Yes	02	00	03	00	01	06	1.2
(b)	No	98	100	97	100	99	494	98.8
8	**Bedding material used for calf in winter**							
(a)	Yes	94	97	95	96	94	476	95.2
(b)	No	06	03	05	04	06	24	4.8
9	**Insurance of calf**							
(a)	Yes	12	14	08	07	11	52	10.4
(b)	No	88	86	92	93	89	448	89.6

Conclusion

The study conducted in Hardoi district, Uttar Pradesh, highlights critical gaps in cattle feeding and management practices that directly impact productivity. Indigenous breeds dominate, but productivity is hindered by inadequate feeding, poor housing conditions, and limited genetic enhancement. The reliance on crop residues and insufficient nutritional supplementation contribute to suboptimal cattle performance. Findings emphasize the need for comprehensive strategies to enhance cattle productivity. These include promoting balanced feeding, improving housing conditions, and supporting breed improvement programs. Capacity-building initiatives, farmer awareness programs, and government support are crucial for implementing modern dairy practices. This research provides a strong foundation for targeted policy interventions, aimed at improving livestock productivity and ensuring sustainable dairy farming practices in Hardoi district and similar regions.

References

1. Department of Animal Husbandry & Dairying. 20th Livestock Census. Government of India; c2019.
2. Directorate of Economics and Statistics & Department of Animal Husbandry & Dairying. Livestock census and feed & fodder requirement estimates. Government of India; c2020.
3. Divekar BS, Saiyed LH. Feeding and management practices followed by dairy farmers in central Gujarat. Indian J Anim Prod Manag. 2008;24(3-4):128-133.
4. Prajapati KB, Patel JB, Modi RJ. Feeding practices of dairy cattle in Gujarat. Indian J Anim Sci. 2017;87(11):1392-1396.
5. Food and Agriculture Organization. The state of food and agriculture - Livestock and their interactions with the environment. FAO; c2019.
6. Gill RS, Saini AL. Management practices in relation to calf health and performance in organized dairy farms. Indian J Anim Sci. 2008;78(8):885-889.
7. Yadav S, Singh K, Chaudhary JL. Calf management practices in rural areas of Varanasi district, Uttar Pradesh. Indian J Anim Prod Manag. 2016;32(1-2):107-110.
8. Godara AS, Singh M, Dahiya SS. Calf management practices in Haryana and Punjab. Indian J Anim Sci. 2017;87(4):512-515.
9. Gupta DC, Suresh A, Mann JS. Dehorning practices in cattle and buffaloes: A review. Indian J Anim Sci. 2008;78(7):786-789.
10. Kumar S, Sharma MC, Chaudhary ML. Calf rearing practices in rural areas of India: An overview. Indian J Anim Sci. 2018;88(11):1291-1295.
11. Sabapara GP, Desai PM, Chauhan NM. Calf rearing practices followed by dairy animal owners in tribal areas of Gujarat. Indian J Dairy Sci. 2015;68(1):89-92.
12. Malik DP, Nagpaul PK, Jain AK. Management practices of dairy cattle and buffaloes in Haryana. Indian J Anim Prod Manag. 2005;21(1-2):51-56.
13. Rathore RS, Singh R, Kachwaha RN. Management practices of dairy animals in Rajasthan. Indian J Anim Prod Manag. 2010;26(1-2):52-55.
14. Prajapati KB, Patel JB, Modi RJ. Effect of weaning on calf growth and milk yield of buffaloes. Indian J Anim Sci. 2017;87(9):1093-1097.
15. Kumar A, Mishra DJ. Management practices and constraints of dairy cattle in Bundelkhand region of Uttar Pradesh. Indian J Anim Res. 2011;45(4):287-290.
16. Roy R, Meena BS. Feeding management practices of dairy animals in rural areas. Indian J Anim Sci. 2020;90(3):345-349.
17. Sinha R, Singh RP, Choudhary SK. Feeding and management practices of dairy animals in Bareilly district of Uttar Pradesh. Indian J Anim Sci. 2010;80(5):478-480.
18. Yadav PS, Singh K, Chaudhary JL. Feeding practices in rural areas of Varanasi district, Uttar Pradesh. Indian J Anim Prod Manag. 2015;31(1-2):97-101.