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RESEARCH ARTICLE

PROBLEMS FACED BY MILCH COW GROWERS IN THEIR ENTERPRISE AND SUGGESTIONS PROVIDED IN MIDNAPUR WEST DISTRICT OF WEST BENGAL

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ABSTRACT

The livestock plays an important role in the economy of farmers. The farmers in India maintain mixed farming system i.e. a combination of crop and livestock where the output of one enterprise becomes the input of another enterprise thereby realize the resource efficiency. The livestock serve the farmers in different ways-income, employment, food, social security, draft and dung. Cattle rearing is an important economic activity in India. Milk and milk products (butter, ghee etc) meat, eggs, leather, and silk are raw materials for industries. Its for our children, milk is a good food. Dairy farming is a good option to replace alcohol brewing. India is leading producer of milk in the world. It is due to initiative taken by government through 'Operation Flood'. Under this program good breeds of cows and buffaloes, which yield more milk, have been introduced. Co-operative societies in this field were encouraged. Though there are several problems still existing. Therefore, the present study emphasized on the following objective-to identify the major problems faced by milch cow growers in their enterprise and possible suggestions provided to mitigate those. The study was conducted in Midnapur West district of the state of West Bengal. Multistage random sampling technique was used for selection of the area and respondents of the present investigation. A sample of 100 respondents was randomly selected from the five selected villages (20 respondents from each selected village) according to convenience. The study revealed that-there are several problems but the most important ones are- (1) Price of cow is more at the time of purchasing (100%), (2) At the time of selling cow, price is less (100%), (3) Cow feed (Mess) price is so high (100%), (4) Regular bathing of cows is a problem (100%), (5) Cross breed cows have more problems than deshi cows (100%), (6) Insect-pests problems are there (100%), (7) Diseases problems are there (100%), (8) Worm problem is there (100%), (9) Doctors availability in time is a problem (80%), (10) Visit fee of Doctor is high (73%), (11) Price of medicine is high (100%), (12) Milk price is less in market (89%), (13) Mosquitoes and flies everyday suck the blood of cows so much(100%), and (14) Ration for cow is not available (100%). The main suggestions of respondents were (1) price of feed will be less (100%) (2) shallow tube-well should be established for providing water for cattle rearing (100%), (3) short term training should be organized for controlling insect-pests(100%) (4) short term training should be organized for controlling diseases (100%) (5) short term training should be organized for controlling worms (100%) (6) doctor will be available in time (80%), (7)price of medicine will be less(100%) (8)price of milk will be high (89%) (9) using mosquito net at night time is a solution(100%) and (10)animal ration should be provided by the government (100%). Therefore, the extension agencies who are working at base level should take proper measures to promote the milch cow rearing, especially, there is needed more awareness programmes mainly on insect-pests and diseases control measures, maintaining proper diet for growing cows, awareness on suitable breeds, artificial insemination and others.

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INTRODUCTION

A large number of farmers in India depend on animal husbandry for their livelihood.

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In addition to supplying milk, meat, eggs, wool and hides, animals, mainly bullocks, are the major source of power for both farmers and drayers. Thus, animal husbandry plays an important role in the rural economy. Its a profitable business, a good opportunity for a good source of livelihood for farmers. Once farmers learn it, they will earn more and work lesser in

terms of physical labour as compared in agriculture. Today, India has the world's largest dairy herd (composed of cows and buffaloes), at over 304 million strong, and stands first in milk production, with 112.5 million tonnes of milk produced in 2009-2010. The National Dairy Development Board was established in 1965 under the auspices of Operation Flood at Anand, in Gujarat, to promote, plan, and organize dairy development through cooperatives. Operation Flood, the world's largest integrated dairy development program, attempted to establish linkages between rural milk producers and urban consumers by organizing farmer-owned and -managed dairy cooperative societies. In the early 1990s, the program was in its third phase and was receiving financial assistance from the World Bank and commodity assistance from the European Economic Community.

At that time, India had more than 64,000 dairy cooperative societies, with close to 7.7 million members. These cooperatives established a daily processing capacity of 15.5 million liters of whole milk and 727 tons of milk powder. Livestock plays an important role in Indian economy. About 20.5 million people depend upon livestock for their livelihood. Livestock contributed 16% to the income of small farm households as against an average of 14% for all rural households. Livestock provides livelihood to two-third of rural community. It also provides employment to about 8.8 % of the population in India. India has vast livestock resources. Livestock sector contributes 4.11% GDP and 25.6% of total Agriculture GDP. Animals provide a large proportion of energy required in the farm sector. The bullocks, buffaloes, horses, ponies, camel etc. are used as draught animals. They are used in agricultural activities like ploughing of fields, drawing of water from wells and for carrying loads. It is to be noted here that with rise in mechanized farming, the use of animal power for farm operations is on gradual decline. This is more true of Green Revolution areas. Hides and skins of animals are used as raw material for leather industries. Sheep, goats and camels provide wool. Their dung are used for biomass gas production and for making manure. The modern dairy farms produce milk powder, butter, and cheese; condense milk, cream, and ghee along with milk. The largest number of livestock is found in Uttar Pradesh followed by the states of Rajasthan, Bihar and Madhya Pradesh. These four states account for 44% of total livestock of India. The density of animals in India is the highest in the world. It is about 130 heads of livestock per 100 hectare of land. The percentage of area under permanent pasture is very low in comparison to the density of animal population. Cattles, Buffaloes, sheep and goats are important livestock in India. Livestock rearing has several advantages simultaneously there are several problems. Therefore, the main objective of the study was to identify the major problems faced by the milch cow growers in their enterprise and their possible suggestions to solve those problems.

MATERIALS AND METHODS

The study was conducted in the state of West Bengal. Multistage random sampling technique was used for selection of the area and respondents. At the first stage of sampling, Midnapur West district, one of leading districts in milk production in the state was purposively selected (6th leading district, forerunners are North 24 Parganas, Nadia, Burdwan, Hooghly and Murshidabad according to 2005-2006 data; Source: WB Statistical Handbook, 2007). Midnapur West

district has three sub-division (i.e. Kharagpur, Medinipur Sadar and Ghatal), out of these, Kharagpur subdivision was selected randomly at the second stage of sampling. The selected subdivision has 10 community development blocks (i.e. Dantan I, Dantan II, Pingla, Kharagpur I, Kharagpur II, Sabang, Mohanpur, Narayangarh, Keshiari and Debra), out of these, the Sabang block was selected randomly at the third stage of sampling. The selected block has 226 villages, out of these; five villages were selected randomly at the last stage of sampling. The selected villages were Dubrajpur, Shyamsundarpur, Basulya, Konmoharchak and Kishorepur). Respondents of the study area were milch cow (a cow that produces milk) growers of minimum three years experience who having minimum a milch cow to rear. A sample of 100 respondents was randomly selected from the five selected villages (20 respondents from each selected village) according to convenience. The number of respondents selected from each village is presented in the following table-1.

Table 1. Distribution of respondents village-wise (N=100)

Sl.	Name of village	NRS	PRS
1	Dubrajpur	20	20
2	Shyamsundarpur	20	20
3	Basulya	20	20
4	Konmoharchak	20	20
5	Kishorepur	20	20

(NRS=Number of Respondents Selected;
PRS=Percentage of Respondents Selected)

RESULTS AND DISCUSSION

There are all total 42 problems were identified as major problems in milch cow rearing according to milch cow growers and their possible suggestions were also given by milch cow growers of the study area.

Price of cow is more at the time of purchasing: All the respondents (100%) in the study area reported that cow price is more when you have to go to purchase a cow and they reported that no solution is possible for this problem (100%). Abdulhai *et al.* (2014) indicated that the major constraints felt by the respondents were overall cost of rearing crossbreed animals and maintenance costs are too high as compare to indigenous stock and the average farmer can not afford to buy a good animal due to its very high cost. Other constraints like non-availability of crossbreed heifers in the open market, non-availability of green fodder round the year, no proper use of male calves, non-availability of dairy cooperative society at village level, distant location of A.I centres, less adaptation of crossbreed animals to the local environment were the main cause of respondents for not opting crossbreed cattle farming system. The findings suggests that the negative attitude of livestock farmers towards crossbreeding programme in cattle can be changed by taking corrective measure by the govt. viz. supply of crossbreed animals on subsidized rates, implementation of fodder production programmes, castration of non-descript male calves at young age, opening of A.I. centers and establishment of dairy co-operative societies in villages.

At the time of selling of cow, price is less : Simultaneously; cow price is less (100%) when you have to go to sell a cow and they reported that no solution is possible for this problem (100%).

Table 2. Problems faced by milch cow growers in their enterprise (N=100)

Sl.	Problems	NRR	PRR
1.	Price of cow is more at the time of purchasing.	100	100
2.	At the time of selling of cow, price is less.	100	100
3.	Lack of sufficient space to rear cattle.	60	60
4.	Rice husk (<i>kura</i>) price is more	70	70
5.	Straw price is more	68	68
6.	Grass availability is a problem	42	42
7.	Cow feed (Mess) price is so high.	100	100
8.	Adulterated cowfeed	67	67
9.	Mustard cake price is more.	56	56
10.	Wheat flour price is more.	21	21
11.	Besan (Bengal gram, pea and chickling pea flour) is provided but price is so high.	33	33
12.	Khud (broken pieces of rice grain) price is more.	11	11
13.	Lack of availability of drinking water for milch cow.	56	56
14.	Regular bathing of cows is a problem.	100	100
15.	Lack of suitable breed in locality.	39	39
16.	Cross breed cows have more problems than deshi cows.	100	100
17.	Good quality semen is unavailable.	22	22
18.	Seed is purchased but it is not provided by government.	35	35
19.	Insect-pests problems are there.	100	100
20.	Diseases problems are there.	100	100
21.	Worm problem is there.	100	100
22.	Cow is matured/over matured but it is not coming in fertilizing condition.	4	4
23.	Every month heat (estrus) happens.	6	6
24.	Production of milk is less.	69	69
25.	Milk quality is not good.	12	12
26.	Vitamin price is more.	59	59
27.	Good veterinary doctor is unavailable.	35	35
28.	Doctors availability in time is a problem.	80	80
29.	Visit fee of doctor is high.	73	73
30.	Price of medicine is high.	100	100
31.	Medicine from govt. Veterinary Official is not available.	70	70
32.	Milk price is less in market.	89	89
33.	Milk cooperative is absent in village.	37	37
34.	Cowdung price is less due to gas service.	41	41
35.	Maintenance cost is so high.	51	51
36.	Mosquitoes and flies everyday suck the blood of cows so much.	100	100
37.	Lack of fund	61	61
38.	Animal mitra (Pranibandhu) does not visit village.	27	27
39.	Govt. facilities are not available sufficiently.	31	31
40.	Govt. facilities are not distributed properly.	21	21
41.	Ration for cow is not available.	100	100
42.	Primary health centre for animal is needed.	15	15

(NRR=No. of Respondent Reported; PRR=Percentage of Respondents Reported)

Lack of sufficient space to rear cattle:- More than half of respondents (60%) reported that they have interest to rear a cow in their home due to its several advantages but the main problem is the lack of space. Whatever the housing place that is not sufficient for members of family, hence where to keep the cattle? This problem is day by day going to be a burning problem in our socio-economic condition especially in West Bengal where population density is highest among the states of our country as well as here most of the farmers are marginal and small farmers. Farsighted solution of this problem in future is to follow government's two child policy. Population control and population stabilization are need of the hour. Therefore, their suggestion was that no solution is possible (60%). Priya *et al.* (2015) reported that the landless livestock farmers remain the worst sufferer of natural disasters leading to changes in their socio-economic conditions.

Rice husk (kura) price is more:- Majority of respondents (70%) reported that rice husk price was more. Actually, in the study area, day by day rice cultivation land is taken for fish cultivation, therefore, rice cultivation is reducing drastically, hence available husk price is more as well as they buy it from far away market *also*. Therefore, their suggestion was that lease for fish should be stopped (70%) and the reported respondents were mainly small, marginal farmers and agricultural labourers.

Straw price is more:- Straw price was also more due to abovesaid same reason and it was reported by 68 percent of respondents. Respondents reported that they purchased the straw from far away market. Therefore, their suggestion was that lease for fish should be stopped (68%) and the reported respondents were mainly small, marginal farmers and agricultural labourers.

Grass availability is a problem: Due to lease of field for fish cultivation, availability of grasses is a problem and it was reported by 42 percent of respondents of the present investigation. In rainy season grasses are not available, actually the study area is low land area and rainy season except main walking paths, all other topography submerged, Due to lease of field for fish cultivation, grasses are not available sufficiently. Therefore, their suggestion was that lease for fish should be stopped. (42%) and the reported respondents were mainly small, marginal farmers and agricultural labourers.

Cow feed (Mess) price is so high : All the respondents (100%) reported that cow feed (Mess) price was so high (Rs. 1200/60kg) though cowfeed is one of most important needs of milch cow rearing. Therefore, their suggestion was that price of cowfeed will be less (100%).

Table 3. Problems faced by milch cow growers in their enterprise and their suggestions to solve those (N=100)

Sl.	Problems	Suggestions	NRR	PRR
1.	Price of cow is more at the time of purchasing.	No solution is possible.	100	100
2.	At the time of selling of cow, price is less.	No solution is possible.	100	100
3.	Lack of sufficient space to rear cattle.	No solution is possible.	60	60
4.	Rice husk (<i>kura</i>) price is more	Lease for fish should be stopped.	70	70
5.	Straw price is more	Lease for fish should be stopped.	68	68
6.	Grass availability is a problem	Lease for fish should be stopped.	42	42
7.	Cow feed (Mess) price is so high.	Price of feed will be less.	100	100
8.	Adulterated cowfeed	Govt. officials should inspect the quality of food.	67	67
9.	Mustard cake price is more.	Mustard cake price should be less.	56	56
10.	Wheat flour price is more.	Wheat flour price will be less.	21	21
11.	Besan (Bengal gram, pea and chickling pea flour) is provided but price is so high.	Besan price should be less.	33	33
12.	Khud (broken pieces of rice grain) price is more.	Khud (broken pieces of rice grain) price will be less.	11	11
13.	Lack of availability of drinking water for milch cow.	Shallow tube well should be established.	56	56
14.	Regular bathing of cows is a problem.	Shallow tube well should be established.	100	100
15.	Lack of suitable breed in locality.	Suitable breed will be available.	39	39
16.	Cross breed cows have more problems than deshi cows.	Proper cross breed cows should be developed.	100	100
17.	Good quality semen is unavailable.	Govt. should provide good quality semen.	22	22
18.	Seed is purchased but it is not provided by government.	Govt. should provide good quality semen from vet. Office of block at free of cost or minimum cost.	35	35
19.	Insect-pests problems are there.	Short-term training should be organized at village level.	100	100
20.	Diseases problems are there.	Short-term training should be organized at village level.	100	100
21.	Worm problem is there.	Short-term training should be organized at village level.	100	100
22.	Cow is matured/over matured but it is not coming in fertilizing condition.	Proper treatment is needed from Vet. Doctor.	4	4
23.	Every month heat (estrus) happens.	Proper treatment is needed from Vet. Doctor.	6	6
24.	Production of milk is less.	Proper guidance and treatment is needed from Vet. Doctor.	69	69
25.	Milk quality is not good.	Proper guidance and treatment is needed from Vet. Doctor.	12	12
26.	Vitamin price is more.	Vitamin price will be less.	59	59
27.	Good veterinary doctor is unavailable.	Govt. vet. Doctor should be available.	35	35
28.	Doctors availability in time is a problem.	Doctor will be available in time.	80	80
29.	Visit fee of doctor is high.	Visit fee of doctor should be less.	73	73
30.	Price of medicine is high.	Price of medicine will be less.	100	100
31.	Medicine from govt. Veterinary Official is not available.	Govt. should provide medicine for cow through block office.	70	70
32.	Milk price is less in market.	Price of milk will be high.	89	89
33.	Milk cooperative is absent in village.	Milk cooperative will be there in village.	37	37
34.	Cowdung price is less due to gas service.	No solution is possible.	41	41
35.	Maintenance cost is so high.	Loan will be available in bank.	51	51
36.	Mosquitoes and flies everyday suck the blood of cows	Using mosquito net at night time is a solution.	100	100
37.	Lack of fund	Loan will be available in bank.	61	61
38.	Animal mitra (Pranibandhu) does not visit village.	Govt. veterinary personnel should visit the villages regularly.	27	27
39.	Govt. facilities are not available sufficiently.	Govt. facilities should be available sufficiently.	31	31
40.	Govt. facilities are not distributed properly.	Govt. facilities should be allotted properly.	21	21
41.	Ration for cow is not available.	Animal ration should be provided by the govt.	100	100
42.	Primary health centre (PHC) for animal is needed.	PHC like establishment is needed in village.	15	15

(NRR=No. of Respondent Reported; PRR=Percentage of Respondents Reported)

Adulterated cowfeed: At the most 67 percent of respondents reported that adulteration in cowfeed was a problem. Therefore, their suggestion was that Govt. officials should inspect the quality of cowfeed in market (67%).

Mustard cake price is more : Mustard cake price is more (56%)- now-a-days cow growers are using mustard cake as cowfeed, mustard cake is also used as fish feed, therefore due to high demand, price of cake has increased simultaneously unscrupulous manufacturer misusing that opportunity by adulterating the products. Therefore, their suggestion was that mustard cake price should be less.(56%).

Wheat flour price is more : Wheat flour price is more (Rs. 30-34/kg) (21%)-it is a good food for cow but price is a matter of fact. Therefore, their suggestion was that wheat flour price will be less (21%).

Besan (Bengal gram, pea and chickling pea flour) is provided but price is so high : Besan is provided but price is so high (Pea besan-Rs.36-40/kg; Chickpea besan-55-60/kg and chickling pea-khesari-Rs.15-20/kg) (33%)-besan means bengal gram/chikpea, pea and chickling pea flour, it is a good food for milch cow-but its' high price restricts its' use, Therefore, their

suggestion was that besan price should be less (33%). Singh *et al.* (2017) reported that shortage of feed, one may have to plan alternate rations so that the nutrients shortage may be met with feedstuff of trees origin or added as a supplement ration. Feed a balanced ratio to meet the animals' requirements, and make feed supply as effective as possible.

Khud (broken pieces of rice grain) price is more : Khud (broken pieces of rice grain-Rs.15-20/kg.) price is more (11%)-it is also a good food for milch cattle, but few of poor respondents felt it so costly though its' price is less than rice. Therefore, their suggestion was that khud (broken pieces of rice grain) price will be less (11%).

Lack of availability of drinking water for milch cow : Drinking water is essential for human beings; similarly drinking water is essential for milch cow also. The following problems were remarkable in the study area- Lack of availability of drinking water for milch cow (56%)-summer season water availability is a problem, also problem of getting it from tube-well due to water layer depletion in summer season, aboveall other society members discourage to take drinking water from tube-well for milch cow rearing. Few of respondents collected water for cow rearing from others pond

because they had no own pond. Few of respondents brought drinking water for cow from far away. Few of respondents used nearby unclean canal water. Few of respondents had no own pond as well as they collected drinking water for cow from far away tube-well and this laborious activity is always not possible, so sometimes they bound to use nearby unclean canal water. In a village all the respondents (20%) reported that water supply infrastructure is there but water supply is absent. Therefore, their suggestion was that shallow tube well should be established through panchayats (56%).

Regular bathing of cows is a problem: Regular bathing of cows is a problem (100%) and cow bathing is a problem (100%). Therefore, their suggestion was that shallow tube well should be established. Through panchayats (100%).

Lack of suitable breed in locality: At the most 39 percent of respondents reported that lack of suitable breed in locality is a problem. Therefore, their suggestion was that suitable breed will be available (39%).

Cross breed cows have more problems than deshi cows : Cent percent of respondents (100%) replied cross breed cows have more problems than deshi cows due to several reasons. Therefore, their suggestion was that proper cross breed cows should be developed (100%).

Good quality semen is unavailable: Good milk productions as well as good reproduction are two essential elements for making the dairy farming/business a profitable one. A number of new reproductive technologies have been implemented for enhancing reproductive performances of dairy animals. Artificial insemination is one of the most important reproductive technologies implemented by the dairy industry. Artificial Insemination (AI) is very useful in a country like India where the availability of quality males (sires) is inadequate and has become the major hurdle in the way of dairy animals' development. Artificial insemination (AI) is a technique in which sperm is collected from the male/bulls, processed, stored and manually introduced into the female reproductive tract at appropriate time for the purpose of conception. AI has become one of the most imperative techniques for the genetic improvement of farm animals since preferably the semen from genetically superior sires/males are used to inseminate the female animals artificially. It has been most extensively used for breeding dairy cattle and buffaloes. AI is the tool that possesses the potential of economic and rapid diffusion of elite males to a large number of females in a short duration of time over a large geographical area. In study area, 22 percent of respondents reported that good quality semen is unavailable. Veterinary Doctor provide sire's semen, but it does not work, so repeatation is needed. Therefore, their suggestion was that Govt. should provide good quality semen, (22%) through block veterinary office.

Seed is purchased but it is not provided by government : More than half of respondents (35%) reported that seed/semen is purchased but it is not provided by govt. and they opined that if govt. provide that seed/semen, it will be more reliable. Therefore, their suggestion was that Govt. should provide good quality semen from vet. Office of block at free of cost or minimum cost.(35%). Chaurasia *et al.* (2015) revealed that majority of dairy farmers found to have medium level of entrepreneurial behavior followed by high and low level of entrepreneurial behavior, Hence, special consideration is

required to develop the entrepreneurship in dairy farmers. The entrepreneurial behavior was positively and significantly related with education, dairy experience, organization participation, land holding, livestock possession, annual income, material possession, economic motivation, market orientation, scientific orientation and knowledge of improved dairy management practices found to have positive and significant relationship with entrepreneurial behavior. Distance location of A.I. centre (80%) and lack of veterinary facilities in the village (68.75%) were major constraints reported by dairy farmers. Chandra *et al.* (2016) reported that as time of artificial insemination (A.I.) is based on the time ovulation, so, for the reproductive success it is very crucial to measure exact time of ovulation. There is demand of critical observation to reduce the incidence of unnoticed estrus because estrus detection alone plays a significant role in reproductive management of dairy enterprise.

Insect-pests problems are there: All the respondents (100%) in the study area reported that insect-pest infestation was one of major problems in rearing cattle. The main insect-pests of milch cow are the following –house fly (*Musca domestica*), lice (*Haematopinus sp.*), mite (*Psoroptes ovis*), mosquito (*Anopheles quadrimaculatus*), tick (*Rhipicephalus microplus*), house fly (*Tabanus atratus*) and horn fly (*Haematobia irritans*). Therefore, their suggestion was that short –term training should be organized at village level (100%) by govt. veterinary officials.

Diseases problems are there : The main diseases are –

- **Anthrax:** Anthrax, a highly infectious and fatal disease of cattles, is caused by a relatively large spore-forming rectangular shaped bacterium called *Bacillus anthracis*.
- **Black Quarter (Black - leg):** It is a bacterial disease caused by *Clostridium chauvoe*. It is an acute infectious and highly fatal, bacterial disease of cattle. Buffaloes, sheep and goats are also affected. Young cattle between 6-24 months of age, in good body condition are mostly affected. It is soil-borne infection which generally occurs during rainy season. In India, the disease is sporadic (1-2 animal) in nature.
- **Foot and Mouth Diseases (FMD):** It is caused by virus (*Aphthovirus sp.*). In India, the disease is widespread and assumes a position of importance in livestock industry. The disease spreads by direct contact or indirectly through infected water, manure, hay and pastures. It is also conveyed by cattle attendants. It is known to spread through recovered animals, field rats, porcupines and birds.
- **Rinderpest:** It is the most destructive of the virus diseases of cloven-footed animals, such as cattle, buffaloes, sheep, goats, pigs and wild ruminants. It is caused by *Morbilivirus sp.*
- **Mastitis :** The most common bacteria associated with the disease are various species of streptococci. Mastitis, or inflammation of the mammary gland, is the most common and the most expensive disease of dairy cattle throughout most of the world. Although stress and physical injuries may cause inflammation of the gland, infection by invading bacteria or other microorganisms (fungi, yeasts and possibly viruses) is the primary cause of mastitis. Infections begin when microorganisms penetrate the teat canal and multiply in the mammary gland.

- **Footrot:** It is caused by *Spherophorus nodosus*-a large gram-negative rod shaped organism. It is a common cause of lameness in cattle and occurs most frequently when cattle on pasture are forced to walk through mud to obtain water and feed. However, it may occur among cattle in paddocks as well, under apparently excellent conditions. Footrot is caused when a cut or scratch in the skin allows infection to penetrate between the claws or around the top of the hoof.
- **Ringworm:** It is caused by *Dermatophytes* sp-a fungal disease. This is the most common infectious skin disease affecting beef cattle. It is caused by a fungus, and is transmissible to man. Typically the disease appears as crusty grey patches usually in the region of the head and neck and particularly around the eyes.
- **Milk fever:** Milk fever is a disorder mainly of dairy cows close to calving. It is a metabolic disease caused by a low blood calcium level (hypocalcaemia). Milk fever, also known as parturient hypocalcaemia and parturient paresis, is a disease which has assumed considerable importance with the development of heavy milking cows. In classical cases, hypocalcaemia is the cause of clinical symptoms. Hypophosphataemia and variations in the concentration of serum-magnesium may play some subsidiary role. The clinical symptoms develop usually in one to three days after calving. They are characterized by loss of appetite, constipation and restlessness, but there is no rise in temperature.
- Diseases problems are there (100%) i.e. when quite more food is provided dysentery happens, calcium deficiency happens in animal body, dysentery is seen frequently, loss of appetite, pregnancy does not come in proper time, morbidity is a problem, after vaccination, milk is stopped for what reason nobody knows, allergy and skin diseases are seen and kath (black leg) disease is seen. Therefore, their suggestion was that short –term training should be organized at village level by govt. veterinary officials (100%). Manjusha *et al.* (2017) revealed that few well recognized traditional practices were found across the study areas and these were followed in case of Foot and Mouth Disease (FMD), bloat, retention of placenta (ROP), skin diseases, corneal opacity, fever, pneumonia, red water and ectoparasites.

Worm problem is there : Worm problem is there (100%). Therefore, their suggestion was that short –term training should be organized at village level (100%) by govt. officials.

Cow is matured/over matured but it is not coming in fertilizing condition: Cow is matured/over matured but it is not coming in fertilizing condition (4%), Therefore, their suggestion was that proper treatment is needed from Vet. Doctor. (4%).

Every month heat (estrus) happens: Every month heat (estrus) happens (6%), Therefore, their suggestion was that proper treatment is needed from Vet. Doctor. (6%).

Production of milk is less : Production of milk is less (69%). Therefore, their suggestion was that proper guidance and treatment is needed from Vet. Doctor (69%).

Milk quality is not good: Milk quality is not good (12%) and after delivery, in some cases cow is not giving milk. Therefore,

their suggestion was that proper guidance and treatment is needed from Vet. Doctor (12%).

Vitamin price is more: Nearly three-fifth percent of respondents (59%) reported that providing vitamin to milch cow is one of essential activities now-a days for better milk production as well as maintaining proper health of cows. They know this thing but unable to provide that to cows due high price of vitamins in market. Therefore, their suggestion was that vitamin price will be less (59%).

Good veterinary doctor is unavailable : Good veterinary doctor is unavailable (35%), in villages generally quack doctors are there and their diagnosis sometimes failed. Therefore, their suggestion was that Govt. vet. Doctor should be available. (35%) and it will be ensured by the govt.

Doctors availability in time is a problem : Doctors availability in time is a problem (80%). Therefore, their suggestion was that doctor will be available in time (80%).

Visit fee of doctor is high: Visit price of govt. Doctor is so high (73%). Therefore, their suggestion was that visit fee of doctor should be less, reasonable and affordable (73%).

Price of medicine is high: All the respondents in the study area (100%) reported that price of medicine for cows is high and unaffordable and reducing the profit margin of this enterprise. Therefore, their suggestion was that price of medicine will be less (100%). Huozha *et al.* (2017) reported that colostrum provides the first source of nutrients to the calf after birth. Adequate intake of high quality colostrum at appropriate time in early life is the single most important factor governing the survival and health of the young calf. Apparently the cost of raising dairy animals increases if the calf during early neonatal life suffers from mortality or requires medicine to treat preventable diseases.

Medicine from govt. Veterinary Official is not available: Majority of the respondents (70%) reported that medicine from govt. Veterinary Official is not available. Therefore, their suggestion was that Govt. should provide basic medicines for cow rearing through block office.(70%).

Milk price is less in market : Majority of the respondents (89%) reported that milk price is less in market, only Rs. 19-20/litre. Therefore, their suggestion was that price of milk will be high (89%) and it will be announced by the govt. time to time like MSP of various crops.

Milk cooperative is absent in village : More than one –third of respondents (37%) reported that in their village milk cooperative is absent. Therefore, their suggestion was that milk cooperative will be there in village.(37%) and it will bring a system in milch cow rearing because, selling of milk in proper price is a problem. Patel *et al.* (2012) reported that Gujarat state cooperative dairy movement running sucessfully through village milk cooperative societies structure. These village milk cooperative societies have tremendous influence on socio-economic status of members. Members get sufficient income and generate employment for all members of family and by better marketing facilities for their produce. Ghosly *et al.* (2016) indicated that the major constraints perceived by milk producers was lack of regulated market and milk cooperatives followed by low price of liquid milk, delay in payment by

unorganized sector and lack of infrastructure in marketing of milk.

Cowdung price is less due to gas service : Cowdung is mainly used in manure preparation and second most important use as fuel in rural area. It is seen that animal rearing is mostly an activity of small and marginal farmers and now –a –days they are preferring to sell cowdung as fuel to earn some money quickly. Now-a-days households gradually preferring cooking gas hence, price of cowdung fuel is reducing, previously, it was Rs. 150/packet, now it is just Rs. 100/packet and it was reported by 41 percent of respondents. Therefore, their suggestion was that no solution is possible.(41%) for this type of problem.

Maintenance cost is so high : Due to farm mechanization especially introduction of tractor and power tiller, farmers are not rearing bullock for ploughing but they are rearing milch cow to meet the milk demand of family as well as excess milk for selling, though day by day this work is becoming difficult due to maintenance cost is so high(51%), Therefore, their suggestion was that loan will be available in bank.(51%). Vaidya *et al.*(2016), their study revealed that adoption of package of practices in dairy animals like general livestock management, feed and water management, calf rearing, breeding, clean milk production and health management were low and there are some gaps in adoption of scientific livestock management practices. Deworming, full hand milking, washing of teats after milking, feeding of silage, urea treated straw and chaffed green and dry fodder, insurance of dairy animals, participation in animal husbandry training camps, treatment camps and agricultural fairs, record keeping are important practices to be adopted by dairy farmers. Lal *et al.* (2016) reported that majority of the milk producers (65.83%) had medium management efficiency regarding improved dairy farming practices, followed by 17.50 percent and 16.67 per cent of milk producers had high and low management efficiency regarding improved dairy farming practices, respectively.

Mosquitoes and flies everyday suck the blood of cows: Mosquitoes and flies everyday suck the blood of cows so much (100%), Therefore, their suggestion was that using mosquito net at night time is a solution (100%), but it is always not possible.

Lack of fund: At the most 61 percent of respondents reported about their lack of fund. Therefore, their suggestion was that loan will be available in bank (61%) with less paper work.

Animal mitra (Pranibandhu) does not visit village : Under Veterinary Officer of a block, there are few prani bandhus who visit villages and collect information regarding cattle, their health etc as well as they advice animal growers regarding various aspects of cattle life. At the most 27 percent of respondents reported that prani bandhus do not come in villages for providing information to them. Therefore, their suggestion was that Govt. veterinary personnel (animal mitra) should visit the villages regularly (27%). Kale *et al.* (2014) reported that, in relational analysis age of the respondents had negative and significant correlation with their training need, while annual income, herd size, social participation and extension contact were positively correlated with their training need, whereas education, land holding, occupation, family type and economic motivation had non-significant correlation with

their training need. Swain *et al.* (2016) revealed that most of the Gomitras possess very good knowledge on various aspects of health care and management. The variable like age, education, livestock possession and income are positively correlated with knowledge on health care and management. Whereas the variables like family size, land holding and occupation are negatively correlated with knowledge on health care management. No variable was found significantly associated with knowledge on health care management.

Govt. facilities are not available sufficiently : Nearly one-third of respondents (31%) reported that govt. facilities i.e. cowfeed, vaccination facilities, treatment facilities, medicines, vitamins, compensations etc. are not available sufficiently. Therefore, their suggestion was that Govt. facilities should be available sufficiently (31%).

Govt. facilities are not distributed properly : Over one-fifth percent of respondents (21%) expressed their anxiety over lack of proper distribution of govt. facilities and reported govt. officials had full of biasness in selection of beneficiaries. Milch men reported that sometimes govt. provides various facilities but those facilities do not reach to needy, those facilities are hijacked by influentials in village, though few of them do not rearing animal. We the real growers get pain in heart seeing that event, but we have nothing to do. Therefore, they suggested that Govt. facilities should be allotted properly (21%).

Ration for cow is not available : Cent percent of respondents (100%) reported that they did not get ration for cattle. Cow rearing is not so problematic if cattle feed is available because food is the primary requirement for the growth of that animals. Cow feed price is so high in market, therefore it was not possible to afford with that price, because most of the milch cow growers in the study area were small and marginal farmers as well as agricultural labourers who are rearing a cow in their home mainly due to provide milk to family members and excess for marketing. Therefore, their suggestion was animal ration should be provided by the govt. (100%).

Primary health centre (PHC) for animal is needed : At the lowest 15 percent of respondents reported that primary health centre for animal is needed (just like human beings) in locality, may be one primary health centre for 8-10 villages. Milch cow growers suggested that PHC like establishment is needed in village.(15%) so they can easily avail that place, otherwise it is not possible always to avail block veterinary office (which is situated far way) alone or with cow.

Conclusion

There is lot of problems in milch cow rearing. Among these problems the most significant ones are – (1) at the time of selling of cows, price is less (2) lack of sufficient space to rear milch cow (3) grass availability is a problem (4) cow feed (mess) price is so high (5) adulterated cowfeed (6) lack of availability of drinking water for milch cow (7) cow bathing is a problem (8) lack of suitable breed in locality (9) cross breed cows have more problems than deshi cow (10) good quality semen is unavailable (11) Insect-pests problems are there (12) Diseases problems are there (13) Worm problem is there (14) production of milk is less (15) vitamin price is more (16) Doctors availability in time is a problem (17) Visit fee of doctor is high (18) Govt. Doctor visits rarely (19) price of

medicine is high (20) milk price is less in market (21) milk cooperative is absent in village (22) maintenance cost is so high (23) lack of fund (24) animal mitra/pranibandhu does not visit village (25) Govt. facilities are not available sufficiently (26) Govt. facilities are not distributed properly (27) Ration for cow is not available (28) Primary health centre for animal is needed. Majority of respondents expectations from social system to rear the milch cow properly were- (a) cow feed (mess) price will be low/reasonable (b) drinking water should be available (c) good quality semen will be available (d) proper and cost effective insect-pests and diseases control measures will be there (e) Doctors should be available in time (f) milk cooperative will be there in village (g) Ration for cow should be introduced from govt. side. Respondents main expectation was ration for cow should be introduced from govt. side. Therefore, the extension agencies who are working at base level should take proper measures on the basis of the findings of the present investigation to promote the milch cow rearing.

After independence, we imported foodgrains from USA under PL-480, because that time we were not self sufficient in food production. Due to introduction of high yielding varieties programme in 1966-67, a revolution happened in India's food production through green revolution. Now our country is self-sufficient in food production but not self sufficient in nutritional security. Therefore, beginning of 21 st century our main concern is providing nutritional security to every citizen. Main aspects of proper nutrition are-food (carbohydrate manily)+vegetables+fruits+milk+egg+fish+meat. Milk is a balanced food in our diet system and which has tremendous impact on maintaining healthy life. But, sufficient amount of milk is not available (per capita availability of milk in West Bengal 145gm but per capita need of milk per day 300gm) for consumption.

Therefore, milch cow rearing is an essential activity of rural household to maintain nutritional security of family members especially growing children. But recent days, milch cow rearing is facing many problems. In the study area most of the farmers are marginal and small farmers, their main problem in cow rearing was lack of space, second most important problem was lack of availability of paddy straw, rice husk (kura) and grasses due to lack of cultivation of paddy due to lease of field for fish cultivation. In this background, farmers' main expectation from govt. is that govt. should introduce food rationing system for cows, so –they will be able to carry out this enterprise in a sustainable way and this effort of govt. will really be a bedrock effort to direct citizen to walk on the way of nutritional security. In near future, right to food and right to nutrition will be considered as two most important fundamental rights of every citizen, because, healthy individual leads to healthy nation and healthy nation leads to prosperity. Therefore, to make our country prosperous we will recite this mantra-“health is wealth” indicates health is national wealth.

“It is health that is real wealth and not pieces of gold and silver.” --M.K.Gandhi

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