GOVERNMENT OF INDIA
MINISTRY OF FISHERIES, ANIMAL HUSBANDRY & DAIRYING
DEPARTMENT OF ANIMAL HUSBANDRY & DAIRYING
LOK SABHA
UNSTARRED QUESTION NO. 1624
TO BE ANSWERED ON 2ND JULY 2019

EFFECT OF DISEASES ON LIVESTOCK

1624. SHRI SANTOKH SINGH CHAUDHARY:

Will the Minister of Fisheries, Animal Husbandry and Dairying मत्स्यपालन, पशुपालन और डेयरी मंत्री be pleased to state:

(a) whether it is a fact that foot and mouth disease and Brucellosis significantly diminish the milk production;

(b) if so, the details thereof;

(c) the steps taken by the Government to combat foot and mouth disease and Brucellosis; and

(d) whether the Government has any plan to permanently eliminate these diseases, if so, the details thereof and if not, the reasons therefor?

ANSWER

THE MINISTER OF STATE FOR FISHERIES, ANIMAL HUSBANDRY & DAIRYING

(DR. SANJEEV KUMAR BALYAN)

a) Yes. It is a fact that Foot and Mouth Disease and Brucellosis significantly diminish milk production.

b) A number of research literature, published in different journals (details of which are given in Annexure A) have mentioned about the losses of milk yield due to FMD. Similarly, with respect to Brucellosis, there is also lowered milk production to the tune of approximately 10% of the total lactation yield in Brucella positive cattle and buffaloes.

(c) & (d) The Department of Animal Husbandry & Dairying is implementing the Livestock Health & Disease Control Scheme under which the Foot & Mouth Disease Control (FMD-CP) is being implemented since 2003 and Brucella Control Programme(B-CP) is being implemented since 2010 for control of FMD and Brucellosis in the country.

More, recently the National Animal Disease Control Programme for Foot and Mouth Disease (FMD) and Brucellosis has been approved by the Cabinet on 31.05.2019 as a new Central Sector Scheme for a total outlay of Rs.13,343.00 crore for five years (2019-24). An amount of Rs.2683.00 crore is proposed for the financial year 2019-20. It has the following components:

Foot and Mouth Disease (FMD) Control Programme: The programme envisages 100% vaccination of cattle, buffalo, sheep, goats and pigs at six monthly intervals in the entire country. Further, animals will be identified using unique animal identification ear tags. The programme also includes de-worming of targeted population of livestock twice a year as one of its activities.

Brucellosis Control Programme: The programme envisages 100% vaccination coverage of female cattle and buffalo calves (4-8 months age) once in a life time.

The proposal envisages complete control of FMD and Brucellosis in cattle and buffalos by 2025 with vaccination and subsequent eradication by 2030.

Annexure A

Literatures available on loss of milk yield due to FMD:

1. Vijay Bahadur Sharma et al., 2016 (International Journal of Agriculture, Environment and Biotechnology, 9 (3): 463-465, June 2016) studied ' effects of diseases on milk production and body weight of cattle in Uttar Pradesh'. The analysis of the data on milk reduction revealed the significant difference ($p<0.01$) in milk reduction due to various diseases. Over all milk reduction due to different diseases was 46.56% Among all the diseases, FMD caused significantly higher milk reduction (63.40%).
2. B Singh et al, 2013 (Indian Journal of Animal Sciences 83 (9): 964-970) reported 'Estimation of economic losses due to foot and mouth disease in India'. The morbidity losses contributed about 97.64% and rest (2.36%) by mortality of animals. Among different components of losses the maximum loss of 49.83% was observed due to milk loss (direct and indirect). Followed by opportunity cost (16.15%) and reduction in growth (12.20%).
3. G. Govindaraj et al., 2017 (Transboundary and Emerging Diseases. 64 (2017) 849-860) conducted the impact of FMD outbreak in cattle and buffaloes on farming community in Karnataka state, India. A perceptible milk yield loss due to FMD was observed in short term and long term. In indigenous cattle, average duration of illness was 38 days with per animal milk yield loss in short term and long term was 60 USD and 23 USD, respectively. In Crossbred cattle, average duration of illness was 43 days with milk yield loss in short term was 216 USD/animal and in long term was 111 USD/animal. In local and upgraded buffaloes, short-term milk yield loss was 52 USD/animal and 121 USD/animal, respectively, whereas long-term loss was 37 USD/animal and 65 USD/animal, respectively. The total milk yield loss across the species revealed the highest loss of 327 USD/animal in Crossbred cattle (ranging from 31 to 1022 USD) followed by upgraded buffaloes (207 USD/animal), local buffaloes (96 USD/animal) and indigenous cattle (83 USD/animal).
4. A study by Lyons NA et al., 2015 (Preventive Veterinary medicine 120 (2):177-186) was designed using individual animal data from a large-scale dairy farm in Kenya to estimate the impact of an FMD outbreak on milk yield. At the herd level, the average daily yields decreased from around 20 to 13 kg per cow, recovering approximately 2 months after the commencement of the outbreak.
5. Sulav Adhikari, 2018 (Acta Scientific Agriculture 2 (8), 2018) reported that in FMD affected animals milk production greatly reduces than in normal condition. The milk production generally decreases in 2^{nd} and 3^{rd} week period. In the study the milk loss was found to be average of 34% with maximum loss of 39% and minimum loss of 24%. On an average milk production before FMD was 71.72 liter per week per cow and after FMD milk production was found to be 47.56. there was loss of more than 24 liter of milk per week

(As gathered from ICAR)