

COMMUNITY ANIMAL HEALTH SERVICE (YANDUWAN) TO IMPROVE LIVESTOCK HEALTH STATUS FOR TRADITIONAL FARMERS IN KONTENG SUB-VILLAGE, SLEMAN

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ABSTRACT

Livestock from the ruminant group is the commodity most commonly kept by traditional farmers. The availability of animal health services for traditional farmers is important to improve the quality of livestock health. Community Animal Health Services (YANDUWAN) is actively conducted by visiting livestock groups or villages and providing livestock health services needed by traditional farmers. The partners in this activity are traditional farmers in the Konteng sub-village, Sumberadi village, Mlati district, Sleman regency, D.I. Yogyakarta. The methods used were counselling, FMD (Foot and Mouth Disease) vaccination services, vitamin administration, and deworming. YANDUWAN aims to improve traditional farmers' awareness of livestock health and improve the quality of livestock health and welfare in traditional farmers. The results obtained in this community animal health services included: farmers were actively engaged in discussing livestock health, especially about FMD, FMD vaccination services for 13 and 16 cattle in both 1st and 2nd vaccination, respectively. In addition, 13 cattle were also marked for being vaccinated for FMD, 35 cattle were administrated with vitamins, and 8 cattle were dewormed. The conclusion that can be presented is that traditional farmers understand more about the importance of livestock health and increase vigilance for disease prevention in ruminants by being willing to carry out recommended vaccinations on their livestock and other treatments for disease prevention.

Keywords : animal husbandry, FMD, animal health center, cattle, vaccination

INTRODUCTION

Advance in the livestock sector is an important part of the development of national food resilience; the development of the livestock sector provides good prospects and has an important role in the growth of the agricultural economy. The livestock commodity that is widely kept by people in rural areas is beef cattle. Pinardi *et al.* (2019) explained that the development of the livestock sector is a strategic step to support food resilience and provide animal protein needs. Waris *et al.* (2019) argue that the livestock sector significantly contributes to the region, especially in growing economic opportunities in rural areas.

Konteng is one of the sub-villages in Sumberadi village, Mlati district, Sleman regency, D.I. Yogyakarta. Cattle are a commodity often kept by traditional farmers. Cattle rearing is generally not the main business of people who work as rice farmers, so the overall management aspect of cattle rearing is very poor. One of the problems in the traditional management system in Konteng is the lack of implementation of good health management by farmers, which consequences in an increased risk of livestock health problems that can cause economic losses for farmers. Aisyah (2011) describes that small-scale farms (traditional farmers) dominate animal husbandry in Indonesia.

The success of livestock farming cannot be separated from the health aspects of livestock to produce high production (Mekonnen *et al.*, 2006). Unhealthy livestock will involve reduced productivity, such as inhibition of meat formation due to impaired nutrient absorption (Triakoso, 2009). The condition of livestock is strongly influenced by health factors, healthy conditions are absolutely necessary to maintain livestock productivity. Prevention, handling, and mitigation of diseases in livestock are prioritized for the success of a farm (Arsyad, 2012).

Health management in livestock is carried out by preventing infectious agents. Disease prevention efforts carried out are the application of biosecurity, namely by maintaining the hygiene and sanitation of barns and the environment, feeding with good nutrition, and increasing the immune system of livestock by providing multivitamins and dewormers (Lestari *et al.*, 2020).

YANDUWAN is one of the priority activities of Puskesmas (Animal Health Center) Sleman as one of the institutions that play a role in animal health services. YANDUWAN is conducted twice a year in each livestock group or sub-village in the working area of Puskesmas Sleman. YANDUWAN activities that are carried out regularly aim to increase and improve the understanding of traditional farmers about livestock health and assist in improving the quality of health and welfare of livestock in traditional farmers. The benefits of implementing YANDUWAN are that traditional farmers can discuss and convey problems related to livestock health to Puskesmas veterinarians and get solutions to overcome problems related to livestock health. Farmers can also get FMD vaccination, vitamin, and deworming services subsidized by the government.

PROBLEMS FOUND

Husbandry management in Konteng sub-village is traditional and has not implemented good livestock health management, which has the potential for high health problems that can arise in livestock. This condition requires assistance to reduce the risk of economic losses due to health problems in livestock.

Awareness and insight into livestock diseases among traditional farmers in Konteng sub-village are still low, so counselling and discussions are needed to increase insight and understanding of dangerous and contagious livestock diseases.

METHOD OF ACTIVITY IMPLEMENTATION

YANDUWAN activities were carried out on September 12, 2023 with planning and preparation from July to September 2023. The location of the activity is in Konteng sub-village, Sumberadi village, Mlati district, Sleman regency, D.I. Yogyakarta, with the target activity being traditional farmers with cattle commodities. YANDUWAN activities include several stages:

1. Planning and preparation of YANDUWAN

YANDUWAN in Konteng sub-village has been planned as a routine agenda every year and this year, it was held on September 12, 2023. Preparations were made by preparing extension leaflets on livestock diseases, FMD vaccines, vitamins consisting of Biosan and B complex injections, dewormers, and medical equipment for livestock.

2. Implementation of YANDUWAN

The implementation of YANDUWAN is conducted using the counselling method, followed by medical examination and treatment of livestock requiring services.

Counselling with the delivery of insights on livestock diseases followed by an interactive discussion. Livestock treatments include FMD vaccination, vitamin administration, and deworming.

3. Evaluation of activities YANDUWAN

The evaluation was conducted by looking at the attitude and interaction of traditional farmers during counselling and discussion. Other parameters evaluated were the willingness and awareness of farmers to agree their animals to be vaccinated against FMD as well as other necessary treatments related to routine disease prevention.

ACHIEVED RESULTS

The YANDUWAN activity is one of the routine activities of Puskesmas Sleman to fulfill its responsibility as an institution that has a role in the animal health sector in Sleman regency. The activity plan is always developed and adjusted to the needs of farmers in the work area under the responsibility of the Puskesmas Sleman. Yusana & Kusumasari (2013), planning and preparation of SOPs (Standard Operating Procedures) must be owned by every Puskesmas as guidelines and references in standardized and written animal health service activities.

Counselling and interactive discussions

The counselling was held at the house of one of the farmers in Konteng sub-village (Figure 1). There were 25 traditional farmers present as participants. Counselling was delivered by veterinary medics (veterinarians) about diseases in ruminants and knowledge about FMD. Leaflets were also distributed to participants to make it easier to understand the themes presented by the veterinary medics. The discussion session was very interactive, with many questions raised by participants related to livestock health and FMD. The final diagnosis of FMD was an interesting discussion during the counselling session because many farmers were not familiar with the clinical symptoms of FMD and how it is transmitted and prevented. Mohamad & Shaari (2022), the re-emerging FMD outbreak in May 2022 became an outbreak that disturbed people in Indonesia. FMD is found in cloven-hoofed animals (cattle, buffalo,

sheep, goats, deer, and pigs) and is caused by *Aphthovirus* of the *Picornaviridae* family. FMD is not zoonotic, meaning it cannot be transmitted from animals to humans. Clinical symptoms that can be observed in FMD-infected livestock include fever, hypersalivation, blisters on the tongue, lips, mammary glands, around the mouth and hoof, lameness, depression, loss of appetite, and weakness. Sudarsono (2022) explains that the spread of the virus that causes FMD is speedy through aerosols, contact with infected livestock, semen, and formites with a relatively low mortality rate.



Figure 1. YANDUWAN counselling on livestock diseases in Konteng sub-village

Counselling is one of the activities carried out by the Puskesmas Sleman to increase farmers' knowledge about animal health so that the goal of improving the quality of animal health in the community can developed and be achieved together between the farmer community and the Puskesmas Sleman. Pratama *et al.* (2020) explained that education is one of the important strategies in disease management in livestock and reporting to veterinary medical officers as a curative measure.

Medical treatment of livestock

Livestock medical services are carried out by directly visiting livestock barns that require medical treatment. There were 18 barns visited in this activity. Cattle barns in Konteng sub-village are generally well-constructed and permanent with cement floors (Figure 2). Medical treatment included FMD vaccination for 13 cattle (1st vaccination) and 16 cattle (3rd vaccination), marker administration for 13 cattle (1st vaccination), vitamin administration for 35 cattle, and deworming for 8 cattle.



Figure 2. Cattle barn in Konteng sub-village

FMD vaccination is one of the strategies for overcoming FMD outbreaks. Vaccinated cattle are marked to make it easier to identify for the next vaccine booster. Diaz-San Segundo *et al.* (2017) explained that vaccination is necessary to obtain adequate herd immunity due to FMD outbreaks. Monitoring of vaccine efficacy and potency in the field continues to evaluate the effectiveness of vaccines in controlling the spread of FMD.

The purpose of vitamin injection in livestock is to increase the body resistance of livestock so that it is expected that the productivity of cattle will increase. Deworming is a routine agenda that continues to be carried out to prevent infections due to helminth parasites that are commonly found in tropical areas such as Indonesia. Lestari *et al.* (2020), to increase the immune system of livestock, multivitamins, and dewormers can be given. Awaludin *et al.* (2018) reported that the proportion of infections due to helminth parasites found in cattle reached 48.7% with the species *Fasciola* sp., *Moniezia* sp., *Ostertagia* sp., *Trichostrongylus* sp., *Cooperia* sp., *Bunostomum* sp., *Strongyloides* sp., *Capillaria* sp., *Oesophagostomum* sp., *Toxocara* sp., and *Trichuris* sp. Nugraheni *et al.* (2018) reported the incidence of helminth parasitic infections in cattle in the Progo river basin, including *Fasciolosis* (40%), *Paramphistomum* sp. (11%), and *Nematodiasis* (Strongyle) (22%). Blood samples (Figure 3) were collected randomly through laboratory testing to assess the health status of the animals.



Figure 3. Blood sampling through the Jugular vein by the veterinarian of Puskesmas Sleman (Sugi Winarsih, DVM)

Evaluation of activities

The evaluation of this activity is that traditional farmers in Konteng sub-district are enthusiastic about YANDUWAN activities carried out by Puskesmas Sleman. Traditional farmers allow their cattle to be vaccinated against FMD, administered vitamins, and dewormed.

CONCLUSION

Traditional farmers in the Konteng sub-village understand and are aware of the importance of livestock health and increase vigilance for disease prevention in ruminants by conducting recommended vaccinations on their livestock and other treatments for disease prevention. Insight on the importance of deworming was another thing that was developed in traditional farmers through the activities of YANDUWAN Puskesmas Sleman.

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