

The use of Antibiotics in Small-Scale Duck Farm at Mojokerto District, East Java

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Keywords: duck, antibiotics, resistance.

INTRODUCTION

Duck is a type of commercial poultry, farmed traditionally by herding transiently or intensive farming by the community. In general, the herding duck looks for food at the surface of rice field and from rice stem. The problem often occurred on these herded ducks were feed poisoning because the extensive use of pesticide in rice field, therefore the traditional farming had become riskier. The careless use of drugs in handling health problems in duck, such as the administration of antibiotics to all livestock within one group. The objective of this study is to identify the use of antibiotic in duck farm.

MATERIAL AND METHOD

This activity was performed in April 2017 at Mojokerto District for small scale farms in 8 sub districts, namely Pungging, Mojosari, Kutorejo, Gondang, Trowulan, Bangsal, Mojoanyar and Trawas. The number of respondents is 300 farmers with minimum 300 duck population. Data collection were performed by interviewing the farmers using structured questionnaire form. Data analysis was performed descriptively.

RESULT AND DISCUSSION

From the result of the study, it was identified that 95% respondents are farming duck as their main livelihood. 70% respondents are layer duck farmer and 30% are broiler duck farmer. The respondent's experiences in duck farming are as follows: 50% people are between 1 – 10 years, 7% are between 11 – 20 years and 43% have farming over than 20 years of experiences.

The type of drugs, vaccines and chemicals that often used are as follows: 48% vaccines, 31% vitamins, 18% antibiotics and 3% herbals and other treatments. In general, there are ten types of antibiotics that are used in duck farms. The most widely used antibiotics is bacitracin (41%), sulfadiazine-trimetrophine (2%), sulfamethoxacine - trimetroprim (8%), enrofloxacin (8%), erytromicine (5%) and others (14%). The bacitracin is frequently used in early

growth of 1 – 30 days (65%), while 19% use this if the ducks are sick and the remaining 16% use this antibiotics in adult ducks. Fifty three percent small scale duck farmers have treatment program. The ease in obtaining drugs, vaccines, and chemicals is provided by the from poultry shops (70%), government officers (17%), drug sales personnel (10%) and others (3%).

General type of diseases experienced are: 42% of the farmers have experienced ducks with gray or blind eye, 25% duck experienced paralysis, 14% sudden deaths, 10% diarrhea and 9% experienced spasms. The action farmers take when the ducks are sick are as follows: 23% ask other farmers, 20% perform self-treatment, 19% contact private technical services, 18% contact governmental veterinary officers, and 16% perform no action while the remaining 4% answer others.

One of the ways to improve feed efficiency is by administering antibiotic (AGP: Anti-Growth Promotor) in ducks at the starter period, using bacitracin of 65% in 1-30 days old. The ongoing use of AGP is one of the causes of the development of bacteria resistance. Feed formulation performed by farmers by self-mixing and adding drugs with unknown dosage.

By herding duck simultaneously with other duck groups in already-harvested rice field posts risks of getting infected from and spreading various diseases. Self-treatments without consultation with authorized veterinary is also a factor for antibiotic resistance's occurrence in duck farms. Rotating antibiotic use is one of the practical ways to prevent it. Action is highly required to improve the knowledge of duck farmers in livestock's healthcare and monitoring of antibiotics' use and circulation by the local government.

CONCLUSION

Improving the farmers' knowledge on antibiotic use in duck farms is required. In addition, the local governments also need to perform monitoring and circulation in duck farm.

AKNOWLEDGMENT

Appreciation for Agriculture Services in Mojokerto District for support of this study in the field, FAO ECTAD Indonesia and USAID for funding this study.

REFERENCE

- [1] Arif RA, Darmawan RD, Sunandar, Widyastuti MDW, Nugroho E, Jatikusumah A, Putra AAGP, Basuno E, Karuniawati A, Suwandono A, Willyanto I, Suandy I, Latif H. Penggunaan Antibiotik pada Peternakan Ayam Petelur di Provinsi Jawa Tengah, Indonesia. Prosiding KIVNAS, ICE BSD 26 September 2016.
- [2] Fasella S 2014. Antibiotics Residual Detection in Duck's Liver from Farms in the District of Bogor. Institut Pertanian Bogor. Final Essay.
- [3] Henning J, Henning K, Vu LT, Yulianto D, Meers J. 2010. The Role of Moving Duck Flocks in the Spread of Highly Pathogenic Avian Influenza (HPAI) Virus in Viet Nam and Indonesia. https://www.researchgate.net/publication/46417983_The_Role_Of_Moving_Duck_Flocks_In_The_Spread_Of_Highly_Pathogenic_Avian_Influenza_HPAI_Virus_In_Viet_Nam_And_Indonesia.
- [4] O'Neill J. 2016. The Review on Antimicrobial Resistance. Tackling Drug-Resistant Infections Globally: Final Report and Recommendations.