Proceedings

3rd Joint International Meetings 2014

The 14th Annual Workshop of the Regional Network on Asian Schistosomiasis and Other Helminth Zoonosis

The 5th Annual Meeting of South East Asia Veterinary School Association

The 3rd Scientific Meeting of Indonesian Veterinary School Association

IPB International Convention Center, Bogor, Indonesia
13–15 October 2014

Faculty of Veterinary Medicine
Bogor Agricultural University
PROCEEDINGS

THE 3 JOINT INTERNATIONAL MEETINGS 2014

THE 14TH ANNUAL WORKSHOP OF
THE REGIONAL NETWORK ON ASIAN SCHISTOSOMIASIS AND OTHER HELMINTH
ZOONOSIS (RNAS+)

THE 5TH ANNUAL MEETING OF
SOUTH EAST ASIA VETERINARY SCHOOL ASSOCIATION (SEAVSA)

THE 3RD SCIENTIFIC MEETING OF
INDONESIAN VETERINARY SCHOOL ASSOCIATION (AFKHI)

IPB International Convention Center, Bogor, Indonesia
13-15 October 2014

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WELCOME from President RNAS+

Dear Participants,

I am really keen to see you all in Bogor-Indonesia very soon, renewing old friendships, sharing research developments and strengthening our RNAS+ region research network. This year Faculty of Veterinary Medicine, Bogor Agricultural University will host the the 14th RNAS+ Annual Meeting in conjunction with the 5th South East Asian Veterinary School Association (SEAVSA) and Indonesian Veterinary School Association (IVSA) scientific meeting sharing common theme control of parasitic zoonosis. Our organizing team both international and local has been working hard. We anticipate an academically stimulating mix of research presentations and workshops, plus a great opportunity for you to experience the atmosphere of Indonesia’s rich cultures.

A big welcome awaits you.

Sincerely,
Banchob Sripa,
President RNAS+
WELCOME from President SEAVSA & Head of AFKHI

Assalamu’alaykum warrahmatullahi wabarakatuh

First of all let us always thank to Allah the almighty for His blessings bestowed to all of us. He gave us good health, time and opportunity to be able to attend this very important meeting. It is of my great pleasure as the president of South East Asia Veterinary Schools (SEAVSA) and Indonesian Association of Veterinary Schools (AFKHI) to welcome you all the participants to 3 joint meetings, the Annual RNAS+ Workshop, as well as the SEAVSA and AFKHI meetings in Bogor.

I would like to express my great appreciation to Prof Dr Herry Suhardiyanto, the Rector of Bogor Agricultural University (IPB) who has given lots of encouragement and support to these meetings, to Prof Dr Banchop Sripa, the president of RNAS+, and all Deans of veterinary schools in South East Asia and Indonesia for their generous support and participation in the meetings.

New paradigm in the veterinary education in teaching relationship among human, animal and environment health has been established using one health approach to give graduates better competency in the understanding, prevention and control of emerging and re-emerging infectious diseases including zoonosis. Despite of their importance in economic and production loss, parasitic zoonosis is still given less concern in the teaching of zoonosis and parasitology in veterinary schools, which may be due to low mortality, low morbidity and chronic cases. On the other hand, there are high number of parasitic diseases and parasitic infection in South East Asian countries. Therefore, it should be important to review the learning outcome and content of the teaching of parasitology and parasitic zoonosis in the curriculum of veterinary schools in South East Asia. We are happy that RNAS+ and together with SEAVSA and AFKHI will discuss and share about these issues in this meeting.

The meeting will host scientific sharing and discussion in the field of parasitology and parasitic zoonosis as well as other veterinary medical issues. In order to prepare the South East Asian country with globally competent veterinary graduates this meeting will also facilitate veterinary schools to discuss and develop standard and minimum requirement of veterinary education in South East Asia region and AUN Quality Assurance.

I would like to thank the sponsors and the organizing committee for all the hard work and support which has made the meeting became possible.

I do hope all participants will enjoy and get benefits from the meeting and able also to enjoy the beautiful of Bogor city.

Thank you very much for kind attention and my Allah the almighty give His bless always.

Sincerely,
Srihadi Agungpriyono,
President of SEAVSA
Head of AFKHI
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The Prevalence of Reproductive Disorder on Beef Cattle

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Key words: prevalence, reproduction disorder, anestrus, repeat breeding, ovarian hypofunction

INTRODUCTION

Main obstacles for the success of artificial insemination is low efficiency of reproduction characterized by failure of pregnancy. Low efficiency of reproductive and productivity in cattle showed that there is a reproductive disorder [1]. A reproductive disorder in cattle generally characterized by the presence of anestrus symptoms and repeat breeding. A case that characterized by anestrus is ovarian hypofunction, ovarian atrophi, luteal cyst, endometritis, metritis, and pyometra. A case that characterized by the presence of repeat breeding is subclinical endometritis, delayed ovulation, and follicular cyst. Up to now epidemiological studies against the prevalence and risk factors of reproductive disorder in beef cattle not widely unveiled.

The aim of this research was to find out the prevalence and risk factors of a reproductive disorder in beef cattle. Expected benefits of the present research is to provide an information of epidemiological of reproductive disorder in beef cattle in Central Java Province as well as providing information of economic impact resulting from disruption of reproduction. In addition, this research result can be contributing to ideas for local governments as decision makers to make efforts of prevention, controlling, and eradication on reproductive disorder optimally.

MATERIALS AND METHODS

Beef cattle, belonging to farmers, were used in this research, both kept in a group or individually, the age of 3 - 8 years old, healthy, had been calving at least once. The beef cattle used located in five sub-districts who was selected to a sample, namely Toroh, Pulokulon, Wirosari, Purwodadi and Gabus in Grobogan district of Central Java Province. Risk factors identified and developed through a questionnaire in cross-sectional study using double stage sampling design [2]. Assessment unit in this research was 256 beef cattle with the level of confident 95% and 214 elected farmers. The determination of the sample at sub-district was done at random. Sample of beef cattle in every sub-district was taken proportionate based on beef cattle population and retrieval of beef cattle in the village level was done in cluster.

Data were exercised directly and through questionnaire against farmers, and observation and examination on cattle. The results of the questionnaire were analyzed in univariat and bivariat using software of statistic for windows version 8. Statistical analysis of the association of categorical data calculated using chi-square (χ²) [3]. The power of an associate in cross-sectional study can be measured using odds ratio (OR) [2]. The level of significance was 0.05. The variables included in the analysis is variable that it has value P<0.05.

RESULTS AND DISCUSSION

Result of the present study showed that reproductive disorder prevalence on beef cattle in Grobogan was 37.5% (96/256). Bivariate analysis of risk factors which is associated to reproductive disorder were dirty cowshed (χ²=17.49; P=0.0000; OR=3.7), sub-district Toroh (χ²=0.002; P=0.0002; OR=3.46), Boloh village (χ²=0.0000; P=0.0000; OR=8.15), cows were only given forage alone (χ²= 9.58; P=0.0020; OR=2.76), cows being kept as a sideline (χ² =13.92; P=0.0002; OR=2.77), farmers knowledge about estrus signs (χ² =6.80; P=0.0091; OR=2.10) and the time of service (χ² =4.24; P=0.0396; OR=1.7518). Cleanliness of cowshed intensely affecting occurrence of reproductive disorder as much as 3,7 times larger than clean cowshed. It is strongly
support that clean cowshed which is a requirement of reproductive success because it will minimize the accumulation of infectious agents in the cowshed.

Cattle in sub-district Toroh has the potential affected by an impairment reproduction 3.46 times higher than the other sub-district. Cattle in the village of Boloh has the potential affected by an impairment reproduction by 8.2 times higher than another village. Farmers that do not possess wisdom of estrus duration and proper time of service attempts to cause reproductive disorder, each about 2.1 times and 1.7 times higher than farmers that are knowledgeable of estrus duration and time of service. Farmers knowledge about estrous cycles and estrus is an important point. Ignorance farmers about estrous cycles and estrus besides can cause failures of the observation of estrus also impact on the implementation of less precise artificial insemination, thus the probability of pregnancy failure becoming higher. Perry et al. [4] explained that knowledge of estrous cycles and estrus is important to allow reproductive management and control of estrous cycle to be more effective. In this study, reproductive disorders that occurred in beef cattle were hypofunction of ovaries 3.9 % (10/256), persistent corpus luteum 4.7% (12/256), ovarian atrophy 0.4 % (1/256), placental retention 2.7% (7/256), dystocia 0.8% (2/256), abortion 1.2% (3/256), silent heat 2.3 % (6/256), and repeat breeding 19.1 % (49/256).

CONCLUSION

Based on the result of the epidemiological study of reproductive disorder in beef cattle in the county of Grobogan can be concluded as: 1. The prevalence of reproductive disorder in beef cattle in the county of Grobogan of 37.5 %; 2. The risk factors influencing reproductive disorder in beef cattle was dirty cowshed, which is located in sub-district Toroh in Boloh village, cows that have been given forage course, cows being kept as a sideline, breeder knowledge about estrus signs and the time of service; 3. Reproductive disorders that occurred in beef cattle were hypofunction of ovaries, persistent corpus luteum, ovarian atrophy, placental retention, dystocia, abortion, silent heat, and repeat breeding.

REFERENCES