



SURAT KETERANGAN

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Telah melaksanakan penelitian dengan judul sebagai berikut :

No	Judul Karya Ilmiah	Tahun Pelaksanaan Penelitian
1	Immunomodulatory Activity of Black Jinten Oil (<i>Nigella sativa</i>) as Macrophage Activator for <i>Salmonella typhimurium</i> Infected Rat	2020
2	Screening the Reproductive Tract of Dairy Cattle for Pathogenic Micros	2019
3	Human Chorionic Gonadotropin (hCG) from Urine of Pregnant Women to Manipulate in vivo Ovulation and Pregnancy of Madura Cows	2019
4	Anti Early Embryonic Protein (EEP) for Pregnancy Test by Microtiter Strip in Dairy Cows	2019
5	The Effect of Feeding High Level of Protein on Reproductive Performance of Bali Starling.	2019
6	Antisperm Antibody in Repeat Breeder Friesian Holstein Cows at KPSP Setia Kawan Nongkojajar, Tutur District, Pasuruan, Indonesia.	2019
7	Diagnosis of Single and Twin Pregnancy, and Early Embryo Mortality Through Progesterone Level Test on Local Does.	2019
8	Improvement of Pregnancy Rate in Bali Cows with the Combination of Equine Chorionic Gonadotropine (eCG) from Local Pregnant Mare with PGF ₂ α .	2019
9	Progesterone Profile of Dairy Cows which Experienced the Failure of Pregnancy to Artificial Insemination (AI).	2019
10	Effect of Heat Shock Protein (HSP) in Post Thaw Baluran Bull Semen	2018
11	Potency of Mycotoxin Binders on MDA Level, Expressions of Caspase 9 and Caspase 3 in The Uterus of Mice Exposed to Zearalenone	2017



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12	Polymorphism of Growth Hormone Gene in The Artificial Insemination Result of Madura Cattle with Limousin Semen as a Reference for Genetic Selection	2018
13	Implementation of fotogrametry techniques as body mass estimation of indo-pacific bottle nose dolphin (Tursiops aduncus) in bali dolphin lodge	2020
14	Uji Sensitivitas Kebuntingan Sapi Perah Menggunakan Pregnancy Specific Protein B (PSPB) Microtiter Strip dan Progesteron sebagai Gold Standard	2007
15	Estimation of Equine Chorionic Gonadotropin (eCG) concentrate in the Blood Sera of Pregnant Mare	2014
16	Efek Pemberian L-Arginin Terhadap Gambaran Histologi Jumlah Spermatisit Primer pada Mencit (Mus musculus) Setelah Terpapar Suhu Panas	2019
17	Anti Prolactine Overcomes Heat Stress on Laying Hen.	2008
18	Unnatural Forced Moulting in The Laying Hen as Cause of Zoonosis from Salmonella Enteritidis	2009
19	Case Study: Dystocia on Beef Cattle in Kunir Regency of Lumajang District, East Java, Indonesia in 2015 and 2016	2017
20	Teratogenic Effect of Congenital Toxoplasmosis in Chicken Embryo	2017

Adapun penelitian tersebut layak dilakukan, meskipun belum ada ***Ethical Clearence*** karena menggunakan hewan coba yang minimal dan menghasilkan output yang sangat baik.

Demikian surat keterangan ini kami buat untuk dapat dipergunakan sebagai persyaratan pengusulan Jabatan Fungsional **Guru Besar**

Surabaya, 3 April 2023

Wakil Dekan III,

Prof. Dr. Mustofa Helmi Effendi, drh., DTAPH

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Dear Erma Safitri,
Universitas Airlangga

Once again, I would like to congratulate you on your successful paper submission. This letter is an official confirmation that your paper

“Case Study: Dystocia on Beef Cattle in Kunir Regency of Lumajang District, East Java, Indonesia in 2015 and 2016”

is **ACCEPTED** to be presented at The **VMIC – Veterinary Medicine International Conference 2017** in Biomedical Science Oral Session 2 on Thursday 13th of July 2017 and is submitted to be published in our proceeding in **KnowledgeE** publisher.

Be sure to follow us on our social media platforms, and keep an eye on our website, to make sure you remain up to date with our upcoming conference! I would like to wish you luck with the registration procedures, as well as all the preparations for the upcoming conference to be held from the 12th to the 13th of July, 2017.

Do not hesitate to contact us with any questions or concerns. You can do this on VMIC website <http://conference.unair.ac.id/index.php/vmic/vmic1>, via mail vmic@fkh.unair.ac.id or by phone/Whatsapp Ms.Martia Rani Tacharina +62 87852341377 .

Kind Regards,

Chairman,

Prof. Dr. Fedik A. Rantam, DVM






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Conference Paper

CASE STUDY: DYSTOCIA ON BEEF CATTLE IN KUNIR REGENCY OF LUMAJANG DISTRICT, EAST JAVA, INDONESIA IN 2015 AND 2016

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Abstract

Dystocia defined as difficulty of birth. Cattle that experienced dystocia characterized by extended processing time of birth, difficult, and impossible to do without help of human stem. This study aimed to determine the number and causative factor of dystocia in beef cattle in Kunir sub district, Lumajang district. Data acquisition used primary data and secondary data. Primary data was obtained from direct observations about management of maintenance, then interviewed the farmers in Kunir sub district. Secondary data was data obtained from the recording belongs to animal health technical officer. The results showed that the prevalence of dystocia in Kunir district, Lumajang district as many as 63 cases or 11,6 % of 543 births. The result of the research is analyzed using chi square (χ^2) method on SPSS 20.0 program and risk factors that increase the incident of dystocia were IB semen which greater than the cattle site, the position of the fetus and inertia uteri can result in weakness of the catrle at the age of older and more likely to give birth.

Keywords: Dystocia; beef cattle.

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1. Introduction

Reproductive disorders in cattle can be caused by various factors, including non-infectious agents [1] and infectious agents [2-4]. Specifically, for reproductive disorders caused by infectious agents or infectious diseases, according to [5] explains that infectious reproductive diseases can cause an abortion, pyometra, endometritis, embryonic death, placental retention, central nervous breakdown of the fetus, sterility in Bull. Due to reproductive disorders in livestock will cause economical impact for

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farmers and decrease the rate of livestock population in the country. Common reproductive disorders of cattle include secundary retensio [7], dystocia (birth difficulties) [8], abortion ([miscarriage,9], and premature / premature birth [10-11]. Dystocia is a difficulty birth process caused by parent or fetus factor. The cause of difficulty in cattle birth involves three main factors: a deficit power from the mother to excrete fetuses [12], presence of birth defects in the parent [13], and abnormalities in the fetus [14]. The incidence of dystocia generally occurs in cattle that give birth first (prempara) rather than cattle that have several times of birth (pluripara) [15]. This study was conducted to determine the case of dystocia and factors that cause it in Kunir District Lumajang Regency Year 2015 and 2016.

2. Materials and Methodes

2.1. Methods

This research was conducted in Animal Health Technical Officer of Kunir Sub-district, Lumajang Regency. The material used in this research is the data of cattle which experienced dystocia from all cases of reproductive disorder in 2015 and 2016. The method used in this research is descriptive method with primary data and secondary data. Primary data was obtained from direct observation of maintenance management, then interviewed by farmer.

2.2. Analisis Data

The collected data is present in tabular form and the result describe with descriptive form. Furthermore, to analyze the factors that cause the case of dystocia using statistical analysis Chi Square.

3. Results

The number of dystocia cases in beef cattle that occurred during two years 2015 and 2016 in Kunir sub district, Lumajang District can be seen in Table 1 and Figure 1.

Based on Table 1. The case of dystocia in beef cattle in 2015 shows that 38 cases or 12.4% and 25 cases or 10.6% cases of dystocia in 2016. The number of births from the two years shows 543 with 63 cases or 11.6% dystocia. Beside that, Eutocia in 2015 shows 269 cattles and then in 2016, 211 cattles with eutocia.

TABLE 1: Number of dystocia cases in beef cattle in Kunir sub district, Lumajang District.

Year	Birth	Dystocia	Eutocia
2015	307	38 (12,4 %)	269 (87,6 %)
2016	236	25 (10,6 %)	211 (89,4 %)
Total	543	63 (11,6 %)	480 (88,4 %)

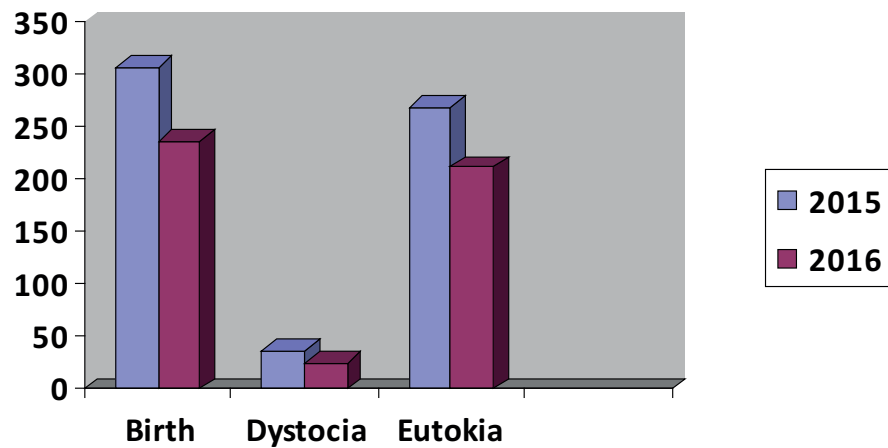


Figure 1: Total dystocia cases in beef cattle at Kunir Regency, Lumajang District – East Java, Indonesia.

4. Discussion

Dystocia are caused by both of the parent factor [12-13] and the fetal factor [14]. The parent factor can be caused by various circumstances, such as: breed, birth period, feed amount, exercise, reproductive disorder or trauma during pregnancy [16]. Fetal factors affecting the case of dystocia include fetal size, sex, fetal condition, and fetus location [14].

Analysis statistic with Chi Square about cattle breed can cause dystocia in beef cattle in Kunir regency, Lumajang distric is $0.468 > 0.05$, it can be concluded that H_0 is accepted, and there is no significant relation. It suspect that dystocia can cause only from artificial insemination from semen Limousin to PO (Ongole Breed).

The effect of cattle age to dystocia in Kunir district of Lumajang Regency using chi-square statistical analysis is $0.955 > 0.05$. it can be concluded that H_0 is accepted, which means no significant relationship. The parent’s age is related to mature sex of the parent. If the parent is still young cattle is likely for the occurrence of higher dystocia because he is still too young. This is because the young female cattle have small size pelvis cavity so that if forced to pregnant during childbirth will cause fracture [17]. Beside that, data about the effect of birth period on dystocia in Kunir sub district of Lumajang Regency using chi-square statistical analysis is $0.898 > 0.05$. it can be

concluded that H_0 is accepted, which means no significant relationship. According to [18] states that as many as 30% to 60% of dystocia occur at first birth, 8% to 25% at second birth, and 2% to 8% at three birth or more. Dystocia is more common in cattle that first birth (primipara) than cattle that have several times childbirth (multipara). This is due to a strain of birth canal that has never been passed by the fetus [15].

Exercise is one of the factor to dystocia cases, data in Kunir sub district of Lumajang Regency using chi-square statistical analysis is $0,470 > 0,05$, it can be concluded that H_0 is accepted and there is no significant relation. The exercise factor that affects dystocia is inertia uteri on the parent because lacks contraction during childbirth.

Data about the effect of feed to dystocia case in Kunir sub district of Lumajang Regency using chi-square statistical analysis is $0.670 > 0.05$, it can be concluded that H_0 is accepted and also there is no significant relation. Excessive feeding during pregnancy can also cause dystocia, this is due to excessive accumulation of fat in the pelvic area. Giving less feed during pregnancy can also cause dystocia, because lacks energy for contraction [19].

Data about the influence of sex to dystocia case in Kunir sub-district of Lumajang Regency using chi-square statistical analysis is $0,716 > 0,05$, it can be concluded that H_0 is accepted and also there is no significant relation. According to [20] the male fetus has a higher birth weight of 2.3 kg to 3.2 kg than the female fetus. The male fetus also experiences a longer birth period of about one to two days compared with the female fetus. According to [21] cited by [22] in beef cattle, the rate of growth and production efficiency is higher in males than females.

The last factor is fetal size, data of the effect fetal size on dystocia case in Kunir sub-district of Lumajang Regency using chi-square statistical analysis is $0,604 > 0,05$. It can be concluded that H_0 is accepted, and there is no significant correlation.

5. Conclusion

The number of dystocia cases on beef cattle in Kunir sub-district, Lumajang District is 63 cases or 11.6% of 543 births. All factors that mentioned above are not significantly different, so other influential factors are semen of bull from larger breed, fetal position and inertia uteri can cause dystocia.

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