

PENGARUH PENAMBAHAN MADU DALAM BAHAN PENGENCER NaCl FISIOLOGIS TERHADAP KUALITAS SPERMATOZOA AYAM MERAWANG BANGKA

Endras Arum Pratiwi
18/430661/PT/07816

INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan madu dalam bahan pengencer NaCl Fisiologis terhadap kualitas *spermatozoa* ayam Merawang Bangka. Penelitian dilaksanakan pada Desember 2021 hingga April 2022 di Laboratorium Fisiologi dan Reproduksi Ternak Fakultas Peternakan UGM. Ayam Merawang Bangka dipelihara di kandang Fisiologi Reproduksi Ternak Fakultas Peternakan UGM. Ayam diberi pakan dua kali setiap pagi dan sore sebanyak 100 gram/ekor/hari, pemberian air minum secara *ad libitum*, dilakukan pemberian kecambah, vitamin C dan vitamin E. Sperma ayam dikoleksi dari 3 ekor ayam pejantan Merawang Bangka usia 54 minggu dengan frekuensi penampungan 2 kali dalam seminggu selama 3 minggu. Sperma diberi perlakuan terdiri dari pengencer NaCl fisiologis dan madu. Madu dilarutkan ke dalam pengencer NaCl Fisiologis dengan komposisi, 0% (P0), 0,2% (P1), dan 0,4% (P2) disimpan dalam suhu 5°C selama 48 jam. Sperma yang telah diencerkan kemudian di uji kualitas mikroskopisnya. Data yang diperoleh seperti motilitas dan viabilitas dianalisis menggunakan *One way Anova*. Hasil penelitian menunjukkan bahwa penambahan madu dengan konsentrasi yang berbeda dalam NaCl fisiologis secara signifikan mempengaruhi motilitas *spermatozoa* ayam Merawang Bangka. Rerata motilitas *spermatozoa* ayam Merawang Bangka pada P0, P1, dan P2 adalah $29,90 \pm 11,26\%$, $48,27 \pm 14,39\%$, dan $33,92 \pm 14,63\%$. Terdapat perbedaan pada viabilitas yang dihasilkan dari masing-masing perlakuan. Viabilitas tertinggi dijumpai pada perlakuan P1 yaitu sebesar $68,64 \pm 15,84\%$ dan viabilitas terendah dijumpai pada perlakuan P0 yaitu sebesar $53,63 \pm 19,96\%$. Berdasarkan hasil penelitian ini dapat disimpulkan bahwa bahan pengencer NaCl fisiologis dengan penambahan madu 0,2% menghasilkan kualitas *spermatozoa* ayam Merawang Bangka terbaik.

(Kata kunci: ayam Merawang Bangka, *spermatozoa*, madu, NaCl fisiologis, kualitas)

THE INFLUENCE OF HONEY ADDITION TO PHYSIOLOGICAL NaCl DILUENT TOWARD SPERMATOZOA QUALITY OF MERAWANG BANGKA COCK

Endras Arum Pratiwi
18/430661/PT/07816

ABSTRACT

This study was conducted to find out the effect of honey addition in Physiological NaCl diluent toward the quality of spermatozoa of Merawang Bangka cock. This study was carried out from December 2021 to April 2022 at the Animal Physiology and Reproduction Laboratory, Faculty of Animal Science in UGM. Merawang Bangka cock are reared in individually cage. The cock were fed twice every morning and evening for 100 grams/head/day, drinking water was provided ad libitum, sprouts, vitamin C and vitamin E were given. Sperm were collected from 3 heads of Merawang Bangka cock aged 54 weeks. Merawang Bangka cock sperm were collected with a massage treatment twice a week for 3 weeks. Sperm were given treatment consisting of physiological NaCl diluent and honey. Honey was dissolved into Physiological NaCl diluent with the composition of 0% (P0), 0.2% (P1), and 0.4% (P2) and stored at 5°C temperature for 48 hours. The diluted sperm was then tested for microscopic quality. The data of motility and viability were analyzed using Oneway Anova. The results showed that the addition of honey with different concentrations in physiological NaCl significantly affected the spermatozoa motility of Merawang Bangka cocks. The average spermatozoa motility of Merawang Bangka cocks at P0, P1, and P2 were $29.90 \pm 11.26\%$, $48.27 \pm 14.39\%$, and $33.92 \pm 14.63\%$. There were differences in the viability resulting from each treatment. The highest viability was found in treatment P1 which was $68.64 \pm 15.84\%$ and the lowest viability was found in treatment P0 which was $53.63 \pm 19.96\%$. Based on the results of this study, it can be concluded that the physiological NaCl diluent with the addition of 0.2% honey produces the best quality spermatozoa of Merawang Bangka cock.

(Keywords: Merawang Bangka cock, spermatozoa, honey, physiological NaCl, quality)