

**PENGARUH PENAMBAHAN TEPUNG KULIT MANGGIS PADA PAKAN TERHADAP KUALITAS SPERMA AYAM KAMPUNG YANG DIENCERKAN DENGAN NaCl FISIOLOGIS**

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**INTISARI**

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan tepung kulit manggis (*Garcinia mangostana* Linn.) pada pakan terhadap kualitas sperma ayam kampung yang diencerkan dengan NaCl fisiologis. Ayam mendapatkan pakan basal dengan suplementasi tepung kulit manggis: 0%; 0,75%; 1,50%; atau 3,00%. Selanjutnya, sperma ditampung dan diencerkan menggunakan NaCl fisiologis dengan perbandingan NaCl fisiologis: sperma sebesar 10:1. Variabel makroskopis yang diukur meliputi: volume, warna, aroma, viskositas, dan pH sperma yang diuji menggunakan Rancangan Acak Lengkap pola searah. Variabel mikroskopis yang diamati meliputi: motilitas, viabilitas, dan abnormalitas sperma menggunakan Rancangan Acak Lengkap pola faktorial (4x15). Pengamatan terhadap respon pada variabel mikroskopis dilakukan setiap 6 jam sekali selama 15 kali masa pengamatan. Data dengan perbedaan yang nyata diuji lanjut menggunakan Duncan's new Multiple Range Test. Hasil penelitian menunjukkan bahwa rata-rata volume segar ayam kampung yaitu 0,15-0,20 ml, konsistensi kental, pH rata-rata 7,07-7,19, warna putih susu dan beraroma amis. Penambahan tepung kulit manggis pada pakan basal rendah protein dengan berbagai level suplementasi tidak berpengaruh pada volume, konsistensi, pH, warna dan aroma. Sperma yang diencerkan dengan penambahan pakan tepung kulit manggis 1,5% memiliki motilitas dan viabilitas yang paling tinggi ( $P < 0.05$ ) dengan abnormalitas yang paling rendah ( $P < 0.05$ ), dengan lama penyimpanan efektif pada jam ke-54.

Kata kunci: Ayam kampung, Kualitas sperma, Pengenceran NaCl fisiologis, Tepung kulit manggis

**THE EFFECTS OF MANGOSTEEN PEEL MEAL SUPPLEMENTATIONS DIET ON SPERM QUALITY OF NATIVE CHICKENS THAT DILUTED WITH PHYSIOLOGICAL NaCl**

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**ABSTRACT**

This research was aimed to observe the effects of mangosteen (*Garcinia mangostana* Linn.) peel (pericarp) meal supplementations diet on sperm quality of native chicken that diluted with physiological NaCl. Native chickens were given one of treatment diets: basal diet with mangosteen peel meal supplementations of 0%; 0.75%; 1.50%; or 3.00%. Subsequently, the collected sperms were diluted with physiological NaCl, with the ratio of physiological NaCl: sperm was 10:1. The macroscopic variables that measured were: volume, color, flavor, viscosity, and pH sperm that were analyzed using one way Complete Randomized Design. The microscopic variables that observed were: motility, viability, and sperm abnormalities, that were statistically analyzed using completely randomized design with 4x15 factorial arrangement. Responses on the microscopic variables were observed every 6 hours for 15x observation periods and followed subsequently by Duncan's new Multiple Range Test for data with significant different. Results showed that volume of native chickens sperm were 0,15-0,20 ml, condensed consistency, pH 7,07-7,19, color is white, and smelt fishy. Mangosteen peel meal supplementation in low level of protein basal diets did not affect volume, viscosity, pH, color, consistency, and smell of sperm. However, sperm that were diluted with 1.5% mangosteen peel meal supplementation had the highest motility and viability ( $P < 0.05$ ) with the lowest abnormality ( $P < 0.05$ ), with effective storage time hours 54.

**Keywords:** Mangosteen peel meal supplementations, Native chickens, Physiological NaCl dilution, Sperm quality