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## JOURNAL ARTICLE

# Onset of spermatozoal degeneration in low-fertility Delaware roosters and test for autoimmune basis

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The objectives of this study were 1) to determine the onset of a heritable reproductive disorder in the rooster that is characterized by extensive spermatozoal degeneration within the ductus deferens, and 2) to determine if autoimmunity was associated with spermatozoal degeneration. Seventy-five percent of the affected roosters did not ejaculate large percentages of degenerate spermatozoa at 20 wk of age, approximately the age of sexual maturity. Rather, seminal quality gradually declined over the next 6 wk, as both ejaculate volume and number of spermatozoa ejaculated increased. The evaluation of testicular and excurrent duct tissues via immunofluorescence failed to reveal either IgY or IgA associated with spermatozoa. While histological examination revealed greater lymphocyte numbers ( $P$  less than .05) in the proximal ductus deferens, these cells were not associated with spermatozoa nor spermatozoal clumping. While spermatozoal degeneration tends to be latent at the onset of semen production, it does not appear to be due to spermatozoal autoimmunity.

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