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SEMEN COLLECTION AND FERTILITY IN NATURALLY FERTILE SANDHILL CRANES

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Abstract: Aviculturists often ask if semen collection will interfere with fertility in naturally fertile pairs of cranes. We used 12 naturally fertile Florida sandhill crane (*Grus canadensis pratensis*) pairs for this study, 6 control and 6 experimental. All pairs had produced fertile eggs in previous years and were in out-of-doors pens scattered throughout different pen complexes, within auditory range but physically isolated. Semen was collected on Tuesday mornings and Friday afternoons from 26 February 1993 to 4 June 1993. We used standard artificial insemination methods to collect and to evaluate the semen and spermatozoa. Semen collection did not affect semen quality or quantity. Semen volume, sperm density, sperm motility, sperm morphology, sperm live, sperm number per collection, and male response to semen collection exhibited significant daily variation ($P < 0.05$). Although semen collection began 13 days before the first egg in the experimental group, we observed no differences in the date of first egg laid or in fertility between experimental and control groups. Also, we observed no differences in the interval between clutches or in the percentage of broken eggs between experimental and control groups. Sires consistently producing better semen samples produced fewer fertile eggs than sires producing poorer semen samples ($r = 0.60$).

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Key words: Florida sandhill crane, *Grus canadensis pratensis*, semen collection, semen, spermatozoa quality and quantity, egg production, fertility.

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