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# Short Communication: Seasonal Effects on Development of Bovine Embryos Produced by In Vitro Fertilization in a Hot Environment

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The objective of this study was to determine if season affected the production of in vitro-derived bovine embryos from oocytes of cattle in a subtropical environment. Ovaries ~75% beef cattle, including many with *Bos indicus* breeding) were collected from an abattoir. Oocytes were obtained and subjected to in vitro maturation and fertilization. Embryos were then cultured in CR1aa medium. Cleavage rate averaged 72.2 ± 9.7% and was not different between months of collection. In addition, no differences were observed in the percent of oocytes or embryos that became blastocysts on d 8 or 9 after insemination. Least-squares means averaged across months for percent oocytes and cleaved embryos to blastocyst on d 8 were 22.8 ± 7.5% and 31.2 ± 9.4%, respectively. When d 8 blastocysts were classified according to stage of development (nonexpanded, expanded, and hatched), an effect of month was observed that reflected month-to-month variation and not a consistent change associated with season. Taken together, results failed to indicate an effect of season on in vitro production of embryos in a subtropical environment.

Key Words: in vitro fertilization • heat stress • seasonality

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