SUMMARY

Fifty-four experimental infestations using 108,000 larvae were made in six horses to find the length of each period of the tick stages in the life cycle of *Anocentor nitens*. Under air-temperature of 27°C, relative humidity > 70%, 12 hours of photoperiod in the incubator, tick females showed an average preoviposition period of 4.53 ± 1.10 days. The egg incubation period was 25.14 ± 1.41 days. Five-day-old larvae were placed and maintained in the horse ears by means of a special cotton cup glued on the ear base. It took eight days for larvae to engorge, showing ecdysis at the end of this period. Nymphs took ten days to engorge and show ecdysis. Adults took ten days to engorge. Engorged females could be collected 28 days after experimental infestation. The complete biological cycle development could be observed 63 days under condition laboratory control.

KEY WORDS: *Anocentor nitens*, ixodidae, equines, biological cycle.