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ENERGETIC CHRONOMETABOLISM IN SWINE: CIRCANNUAL PATTERN OF SOME HEMATO-CHEMICAL PARAMETERS

CRONOMETABOLISMO ENERGETICO NEL SUINO: PATTERN CIRCANNUALE DI ALCUNI PARAMETRI EMATOCHIMICI

RIASSUNTO

Gli Autori utilizzano un modello trigonometrico per lo studio dell'andamento circannuale di alcuni parametri ematochimici (glucosio, trigliceridi, colesterolo totale, fosfolipidi, NEFA e lipidi totali) e della temperatura rettale nel suino. I risultati ottenuti, significativi per temperatura rettale, glucosio, trigliceridi e colesterolo totale contribuiscono alla definizione del cronometabolismo energetico e dei fattori esogeni che lo sincronizzano.

Parole chiave : *Cronometabolismo, parametri ematochimici, temperatura rettale, suino.*

INTRODUCTION

Living matter and the evolving organisms were exposed to the earth's revolution

around the sun with its periodicity of day and night, of light and darkness, with the periodic changes in the length of the daily light and dark span with the climatic changes of seasons. Many periodic functions, ranging in the length of their cycle from milliseconds, to seconds and to months have no known environmental counterpart (Piccione and Caola, 2002; Piccione and Refinetti, 2003).

Some seasonal rhythms are self-sustaining under constant environmental conditions. These have been called true circannual or seasonal rhythms. They have been documented to persist for as many as 12 consecutive cycles in birds and 7 cycles in mammals, even when all significant environmental conditions are held constant. True circannual rhythms have free-running periods that approximate 12 months but can vary considerably among and within individuals. Although they can persist in the absence of environmental cues,