Abstract

Given the lack of papers linking fertility (FERT) with direct animal welfare indicators (AWI), in health, nutrition, reproductive physiology and management at the time of artificial insemination (AI) in tropical dairy herds, were studied thirty five cows, in a predominant racial Carora herd located at dry forest tropical area at 420 m.a.s.l. annual average temperature of 24.5 °C and rainfall of 744 mm, Trujillo State, Venezuela, fed by grazing and supplemented according to yield milk, in two daily milking with calf support, with spontaneous estrus detected for visual observation (VO) of the quiet acceptance of mounting and inseminated by AM / PM rule. At the AI time, the welfare indicators were classified into two levels and were considered pro-gestation: cervical mucus presence (CMP) or slime, vaginal temperature (VT39 o C), body condition score (BCS2) scale 0 = emaciated - 5 = obese, packed cell volume (PCV28%), calving numbers (CN3) red-pink color of the vulva mucosae (RPVM), glycemic (GLY36mg / dL), service number (SN =1), milk daily average of cumulative production to AI (MDA10 L/m/d). The screening for blood parasites was negative. Using a multiple logistic regression with class contrast model the relationships between favorable vs. unfavorable level of each WAI on the FERT and was estimated the value of the odds ratio (OR). The general fertility was 37.14%. The OR values were: 0.800(CMP), 1.814 (VT39 o C), 1.167 (BC2), 4.301 (PCV28%), 0.950(CN3), 0.271 (RPVM), 5.260 (GLY36mg / dL), 0.373 (SN=1), 10.653 (MDA10 L / m / d). The MDA10 L / m / d, GLY36 mg/dL, PCV28%, VT39 o C and BCS2 were the highest risk on fertility (pregnancy event) in this system. These results may help to identify those AWI favorable to gestation at AI time. Further studies are needed.

Keywords

Animal welfare, fertility, risk factors, tropical, Carora cows.