PO163

ENTERIC METHANE EMISSION OF CANCHIM STEERS IN IRRIGATED PASTURE WITH HIGH STOCKING RATE

Alexandre Berndt[1], Paulo Meo Filho[1], Leandro Sakamoto[1], Amanda Lemes[1], Kaue Mahlmeister[1], Daniella Villas Boas[1], Cintia Marcondes[1], Andre Pedroso[1], Ivens Bueno[2],

1 EMBRAPA Southeast Livestock
2 FZEA/USP

The Brazilian current scenario, as largest exporter of beef in the world, there is great pressure to intensify the beef cattle production systems. The objective of this study was to measure the emission of enteric methane of two lineages of Canchim (3/8 Charolais synthetic breed) steers in irrigated pasture with high stocking rate. The study was conducted at EMBRAPA (Brazilian Agricultural Research Corporation) experimental station located in the Southeast of Brazil, during December 2014-May 2015. Twenty four Canchim steers were separated according to their lineages, 12 belong to the new line (N) and 12 ancient lineage (A). The animals were raised in irrigated pasture (Panicum maximum) with high stocking rate. The evaluation of methane production was carried out in July 2013 (dry season), using the SF6 tracer technique (Johnson et al., 1994). Samples were collected every 24 hours for five consecutive days and analyzed in a Shimadzu gas chromatograph (model GC2014). Data was analyzed using the SAS MIXED procedure and mean values were compared using the Tukey test. Treatment differences were considered significant at $P < 0.05$. There were no differences for CH4GD and CH4PV variables, with mean values of 193.98 gCH4/day and 212.89 gCH4/day ($P = 0.3835$) and 0.543 gCH4/kg and 0.547 gCH4/kg ($P = 0.9304$) for the ancient lineage and new respectively. However for methane emission relative to average daily gain (CH4GMD) was significant different ($P = 0.0293$), with a value of 416.44 gCH4 / kg to the old lineage and 335.81 gCH4 / kg for new strain. This could be due to the difference in the GMD ($P = 0.0004$) between the ancient lineages (0.472 kg / d) and new (0.636 kg / d).