E106 POSTER

N-ALKANES METHOD TO ESTIMATE DRY MATTER INTAKE ON TROPICAL GRASSES

TERESA CRISTINA MORAES GENRO[1], JAIRO SILVEIRA GENRO NETO[2], ANA CAROLINA JARDIM CORRÊA[3], EMILIO ANDRÉS LACA[4]

[1]Embrapa Pecuária Sul, Bagé, RS, Brasil. [2]Universidade Federal de Santa Maria, RS, Brasil. [3]Urcamp, Bagé/RS, Bolsista FAPERGS. [4]University of California Davis, CA, USA

This trial was conducted to define which alkane (C_{31} and C_{33}) must be paired with the external marker (C_{32}) to estimate dry matter intake (DMI) of steers grazing three tropical grasses: *Brachiaria brizantha* cv. Marandu , *Panicum maximum* cv. Mombaça e *Penisetum purpureum* cv. Cameroon. This experiment was carried out at Embrapa Beef Cattle, Campo Grande, MS, Brazil. The steers were rotated on a predetermined schedule of 2 days of grazing per rotational paddock. Rotation order through the paddocks remained constant, with 30 days after each grazing bout. Measurements were made during two grazing periods: the middle of the dry season (August 97), at the beginning of the wet season (November 97). To estimate dry matter intake (DMI) eighteen Nelore steers were dosed during 12 days, twice a day, with alkane C_{32}. From eighth to 12th day faeces were collected twice a day also. Herbage hand-clipping samples for n-alkanes analysis were collected from pastures. The profiles of n-alkanes were determinate from herbage and faeces within the range of C-chain between 27 and 35. We can see a clearly difference between DMI estimated using the pair C_{32}/C_{33} and C_{32}/C_{31}. C_{32}/C_{31} underestimated DMI and the pair C_{32}/C_{33} showed DMI values near to values found in the literature for this steers. Both pairs were able to detect DMI differences between species, period and interaction between these. C_{32}/C_{33} seems to be more suitable for DMI assessments using the double alkane technique.