

# Effect of supplementation of whole crushed rapeseed on methane emission from heifers

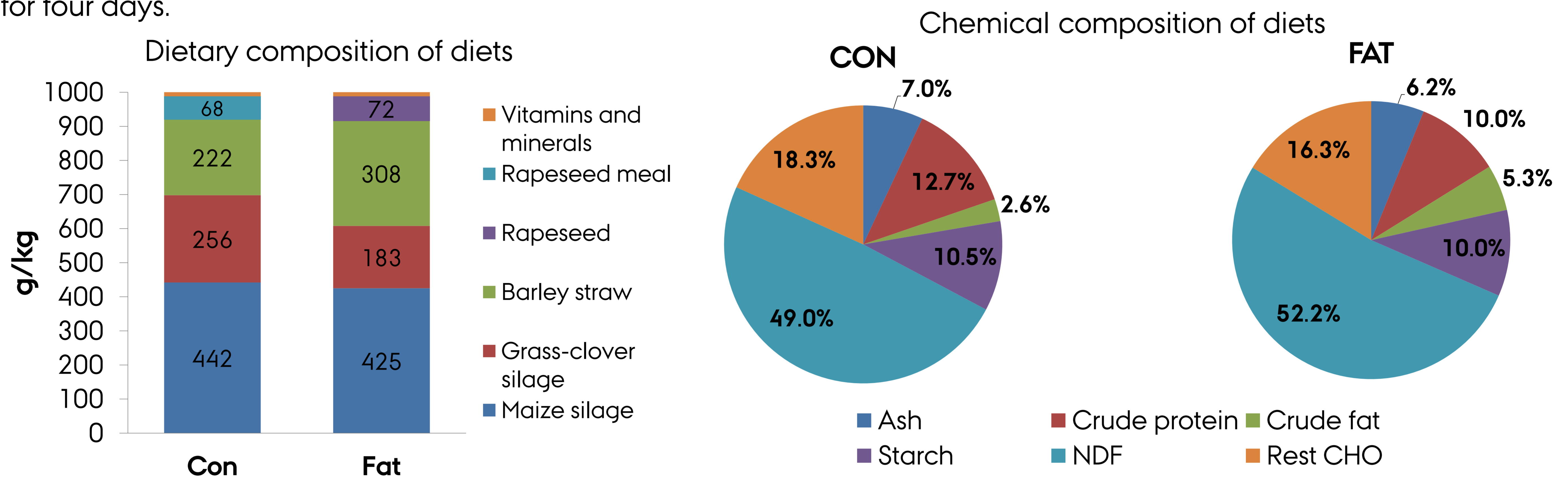
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## Hypothesis and Aim

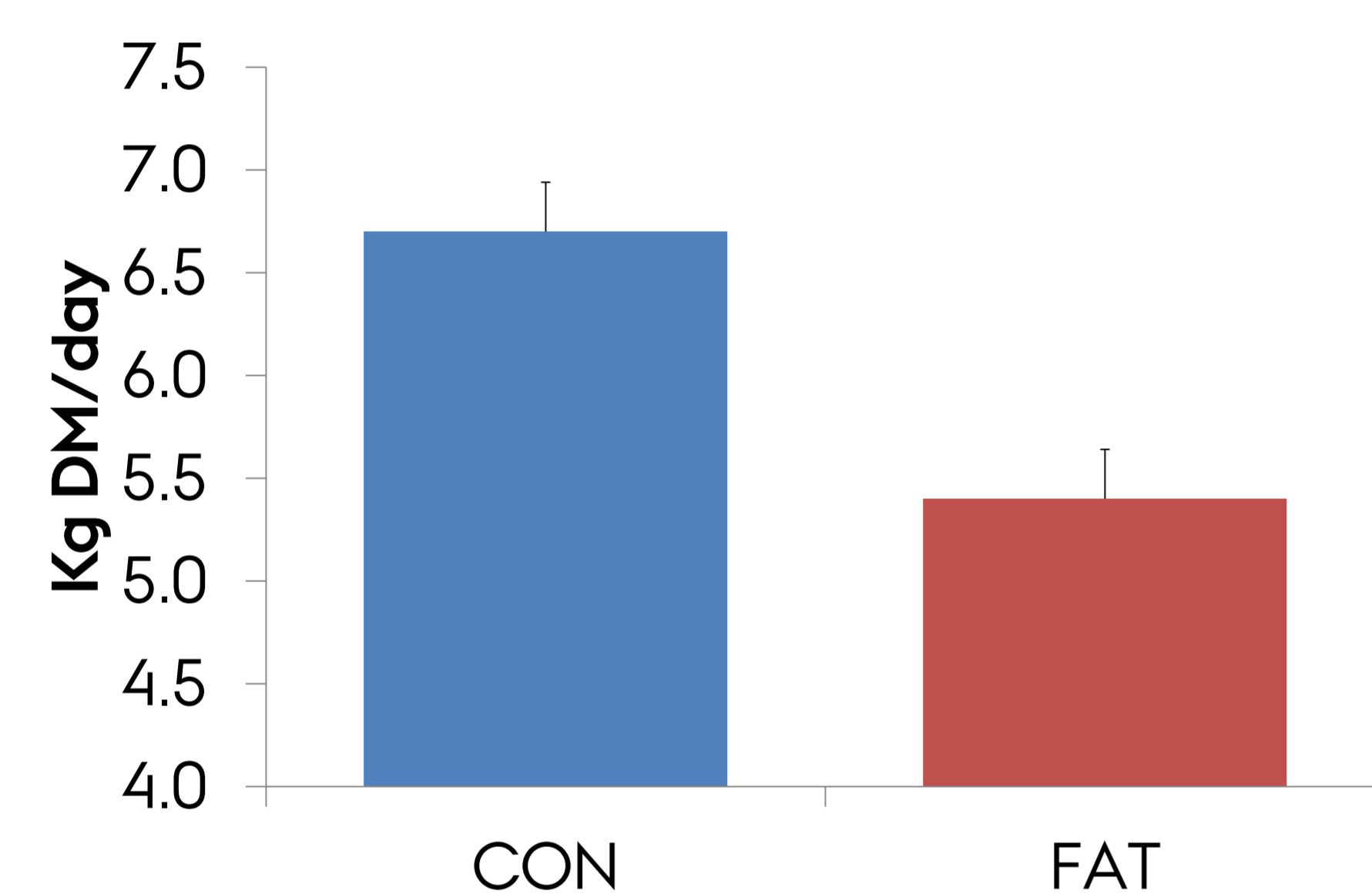
It was our hypothesis that an increased dietary fat level would decrease methane emission from heifers. Thus the aim was to evaluate the effect of supplementing fat on methane emission.

## Material and methods

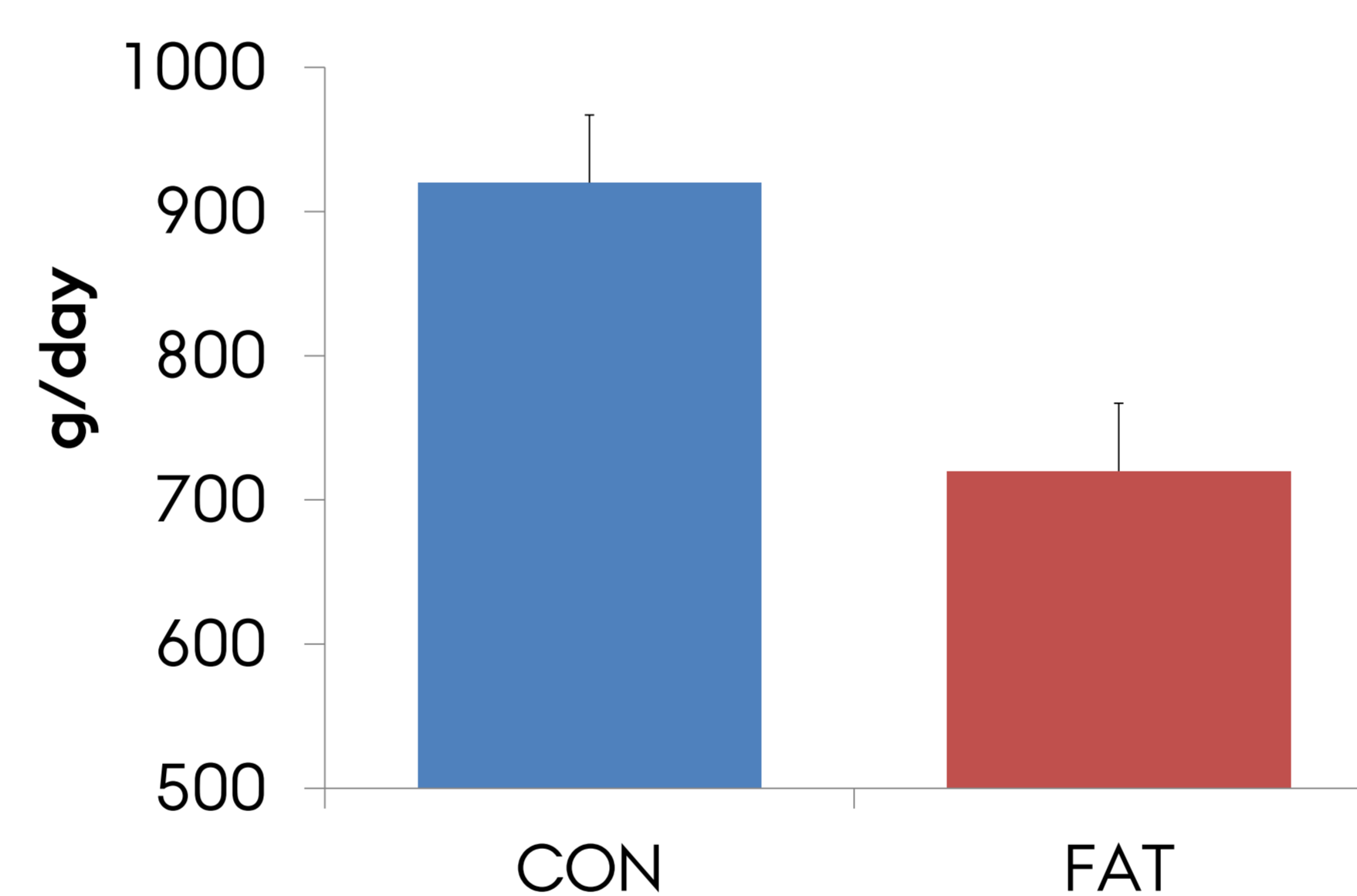
Twelve growing heifers were assigned to either a CONTROL (CON) or a FAT diet fed ad libitum from five month of age. At a weight of  $279 \pm 9.9$  kg (Mean $\pm$ SEM) their methane emission was measured by means of open-circuit indirect calorimetry for four days.



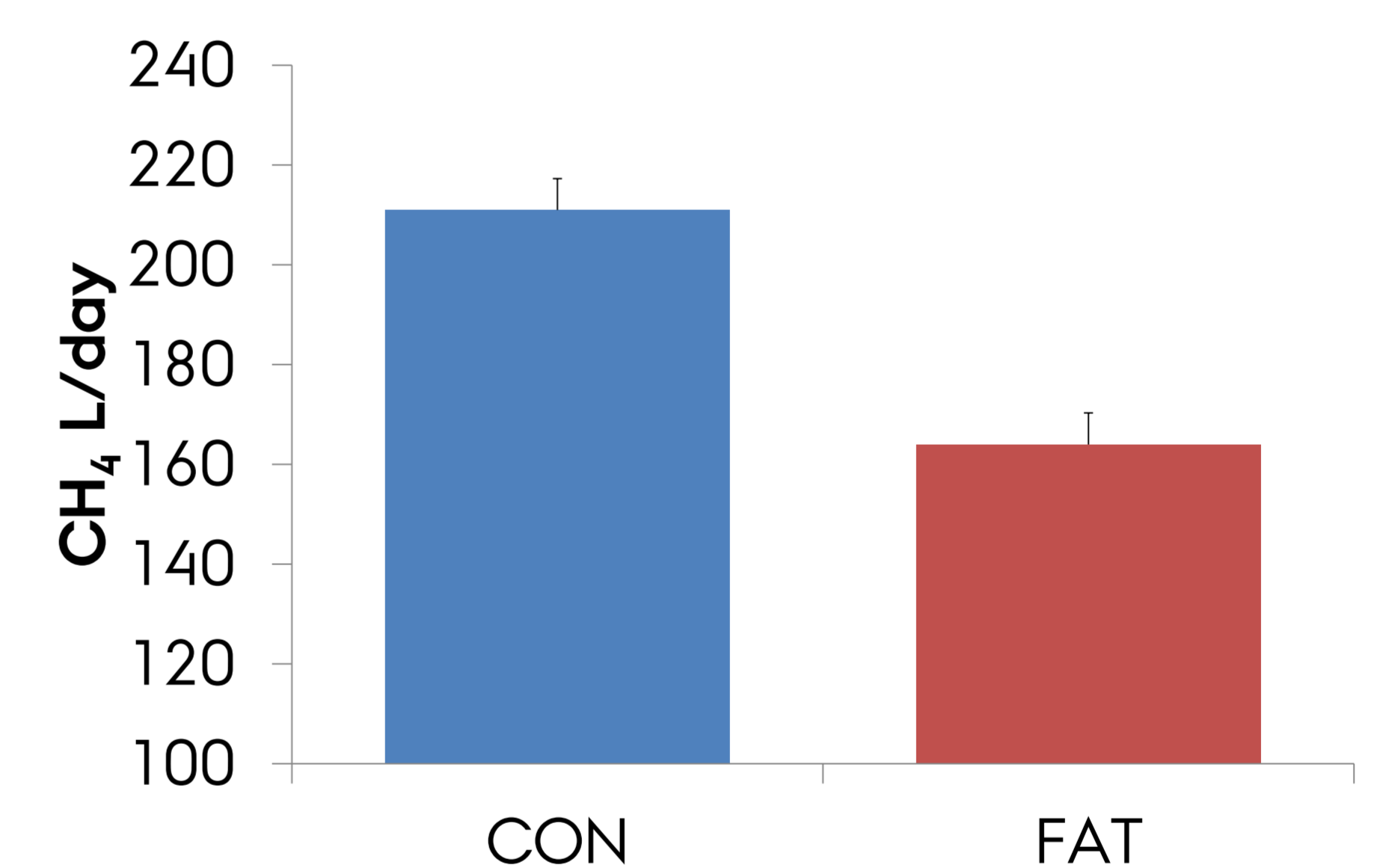
## Results



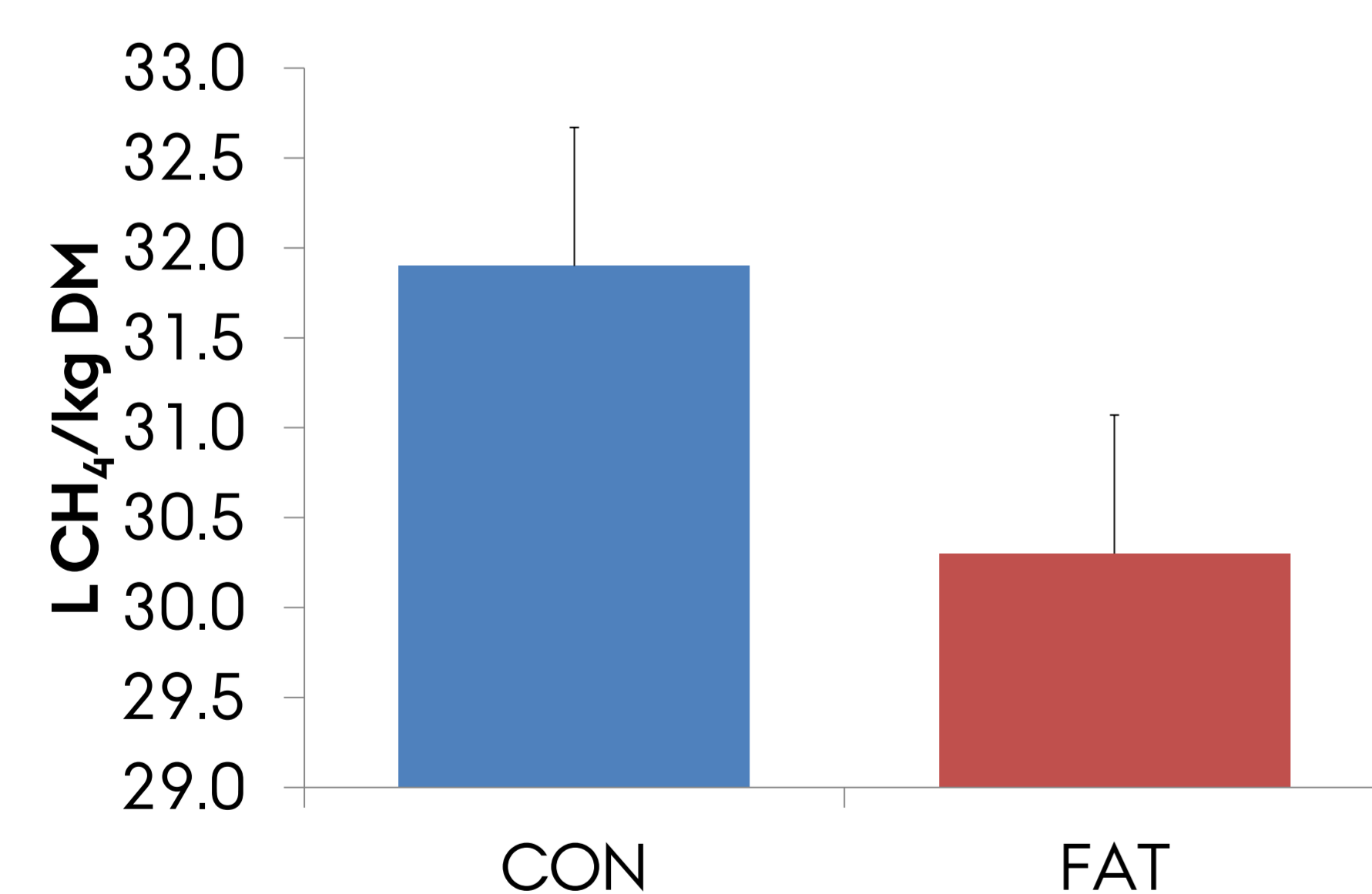
Dry matter intake was lower ( $P=0.01$ ) on FAT than on CON.



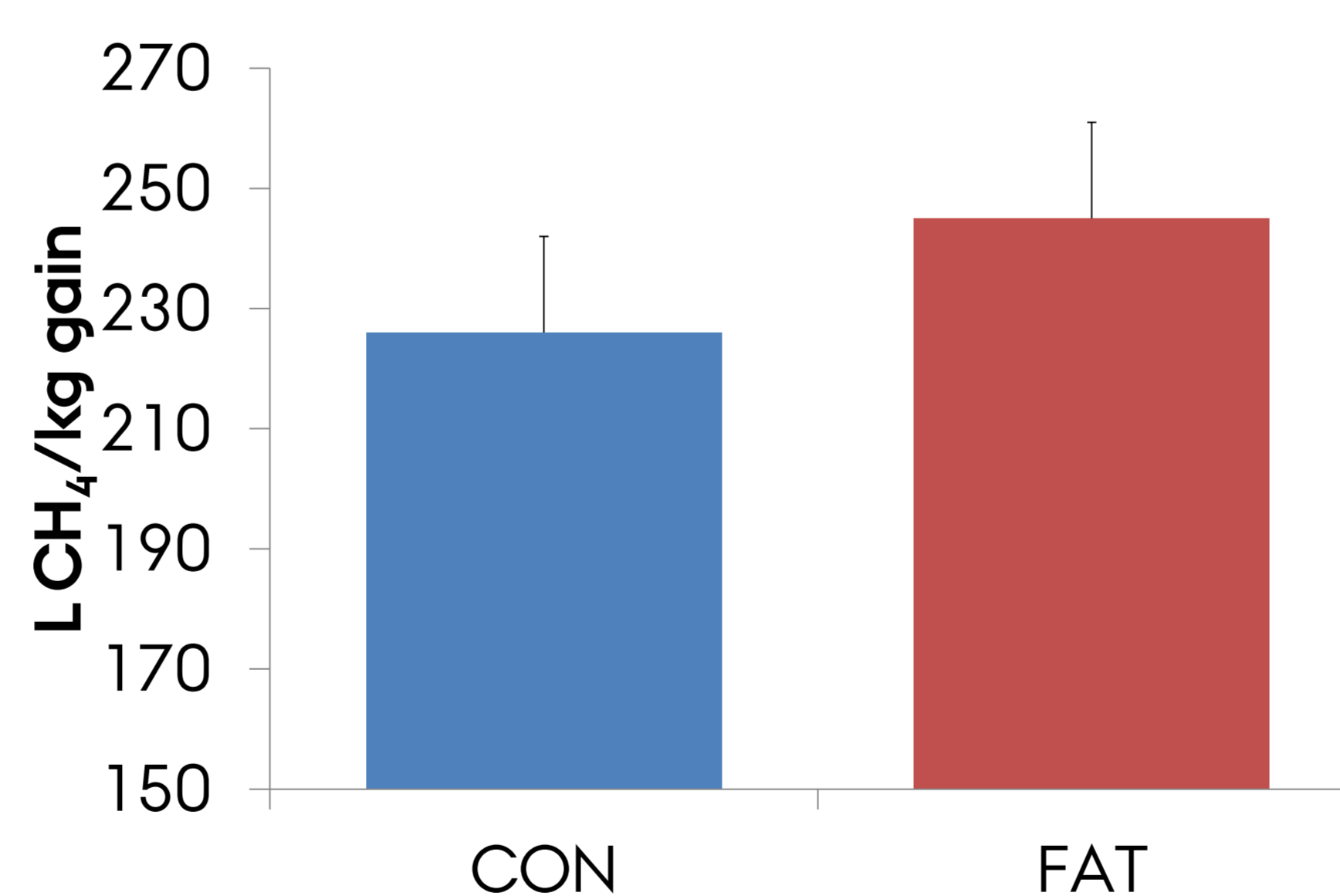
The daily weight gain was lower ( $P=0.02$ ) on FAT than CON.



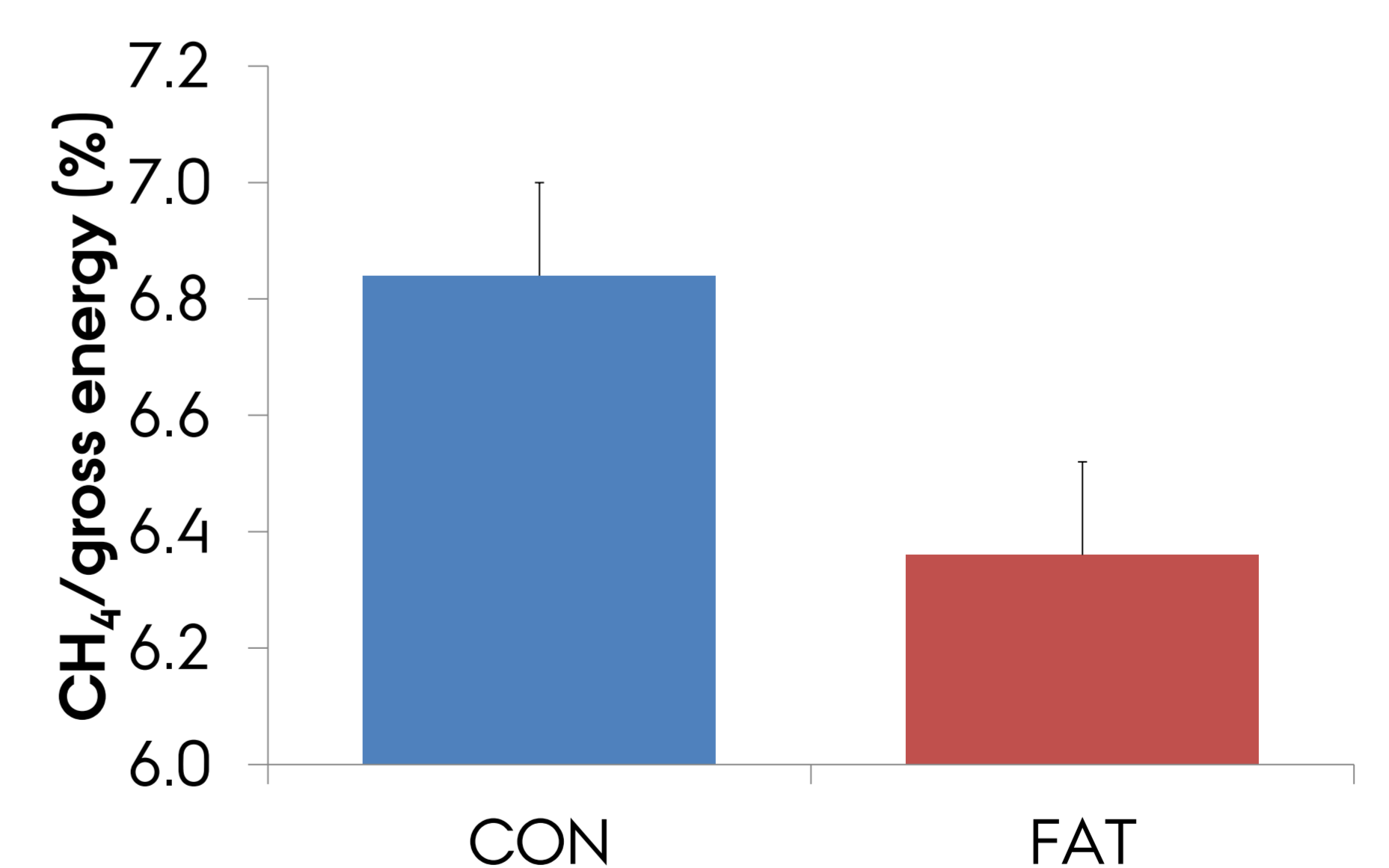
The daily production of CH<sub>4</sub> was lower ( $P=0.02$ ) on FAT than CON



Methane produced per kg dry matter was not different between diets (0.21).



Methane per kg daily weight gain was not different between diets ( $P=0.44$ ).



Loss of gross energy as methane was 7% lower on FAT than CON ( $P=0.08$ )

## Conclusion

- We conclude that supplementing fat to heifer diets may reduce methane emission
- However further studies are warranted to confirm this, because the lower protein content and higher NDF content on FAT compared with CON may have affected the result.



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