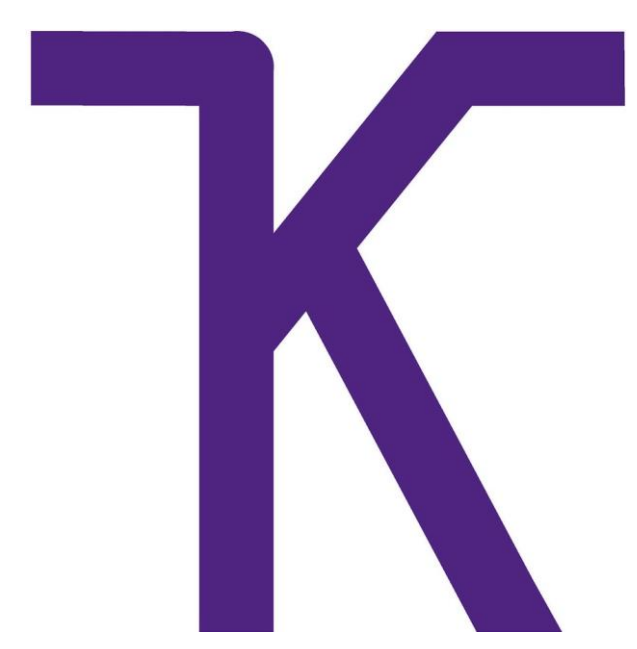




Effects of medium-chain fatty acid diets on nursery pig performance

L. J. Druecker, A. B. Lerner, C. K. Jones



Department of Animal Sciences and Industry, Kansas State University, Manhattan

Introduction

- Carbadox and Zinc oxide are common feed additives in nursery pig diets that improve growth performance.
- Pressure is increasing to replace carbadox and ZnO due to disadvantages including building antibiotic resistance and environment pollution respectively
- MCFA have shown promise as a feed additive that improved performance without the drawbacks of carbadox and ZnO.

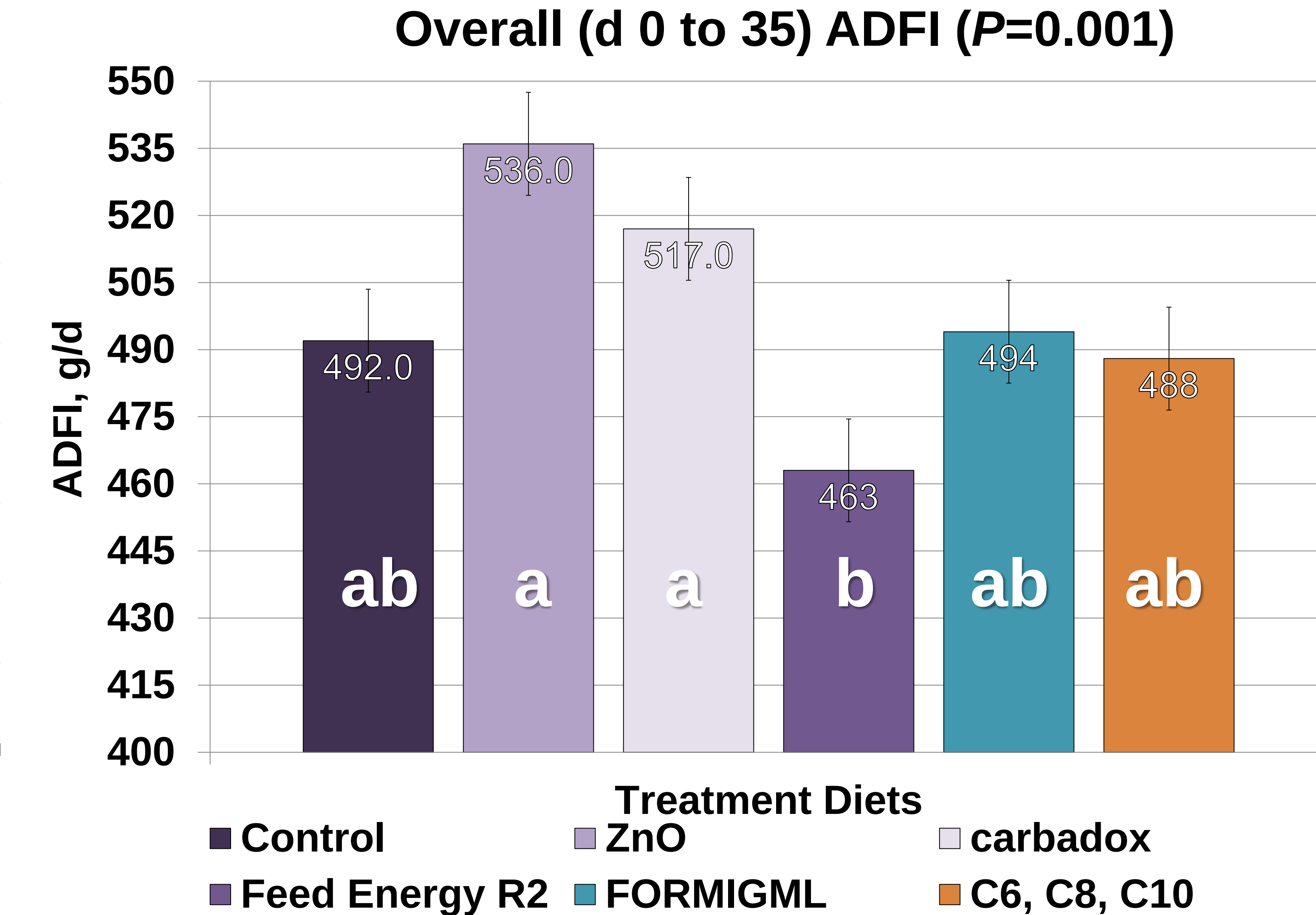
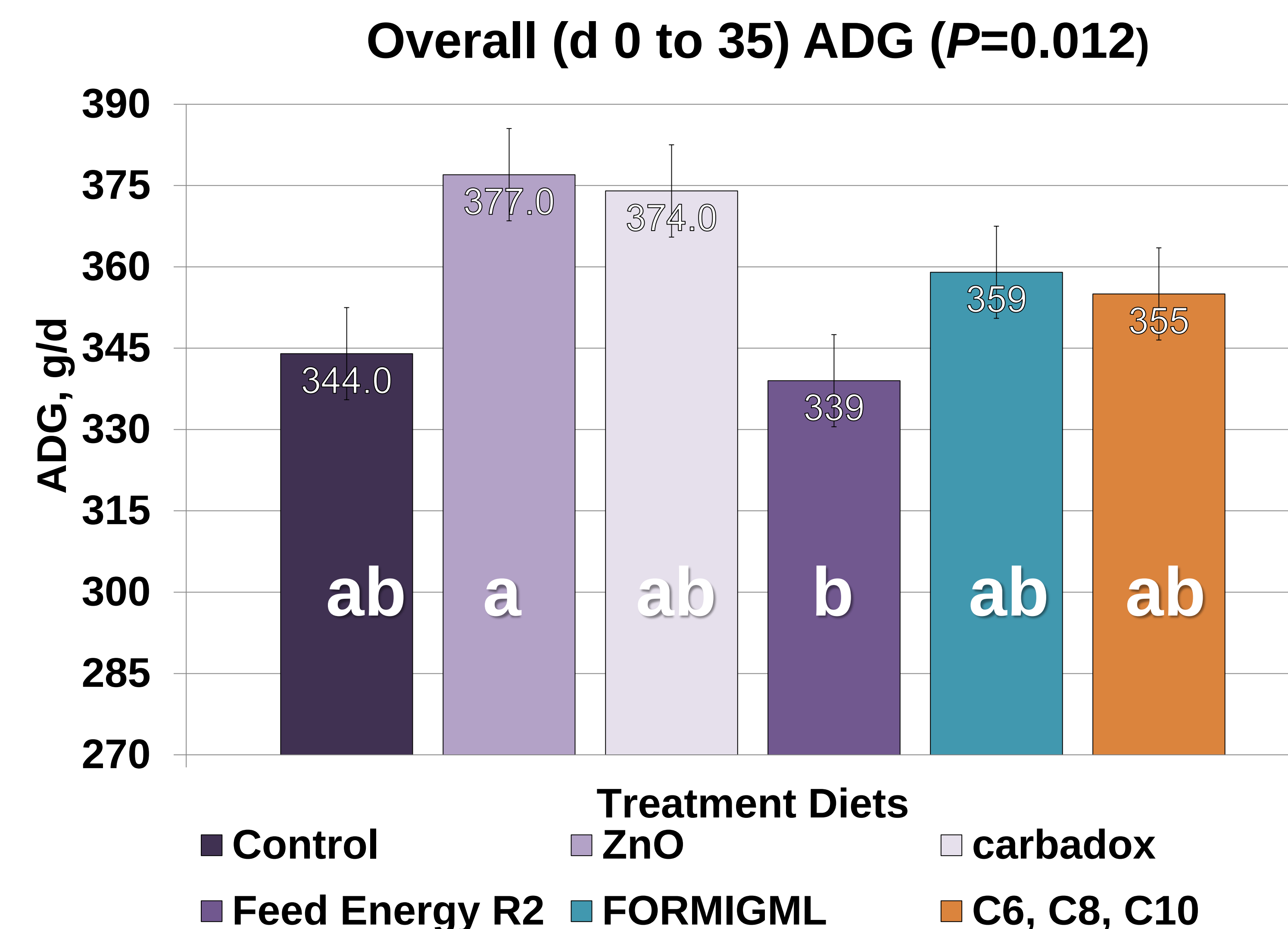
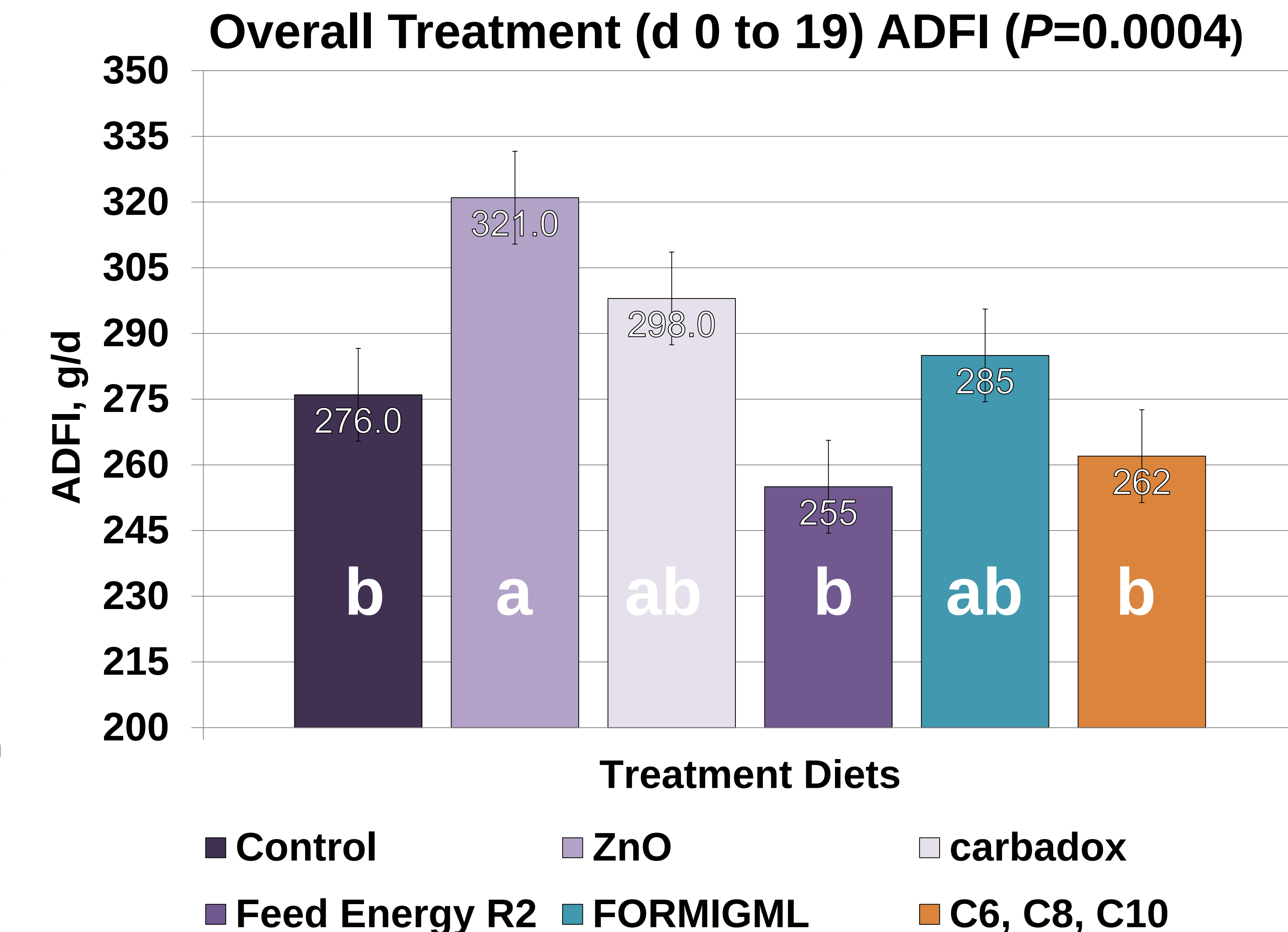
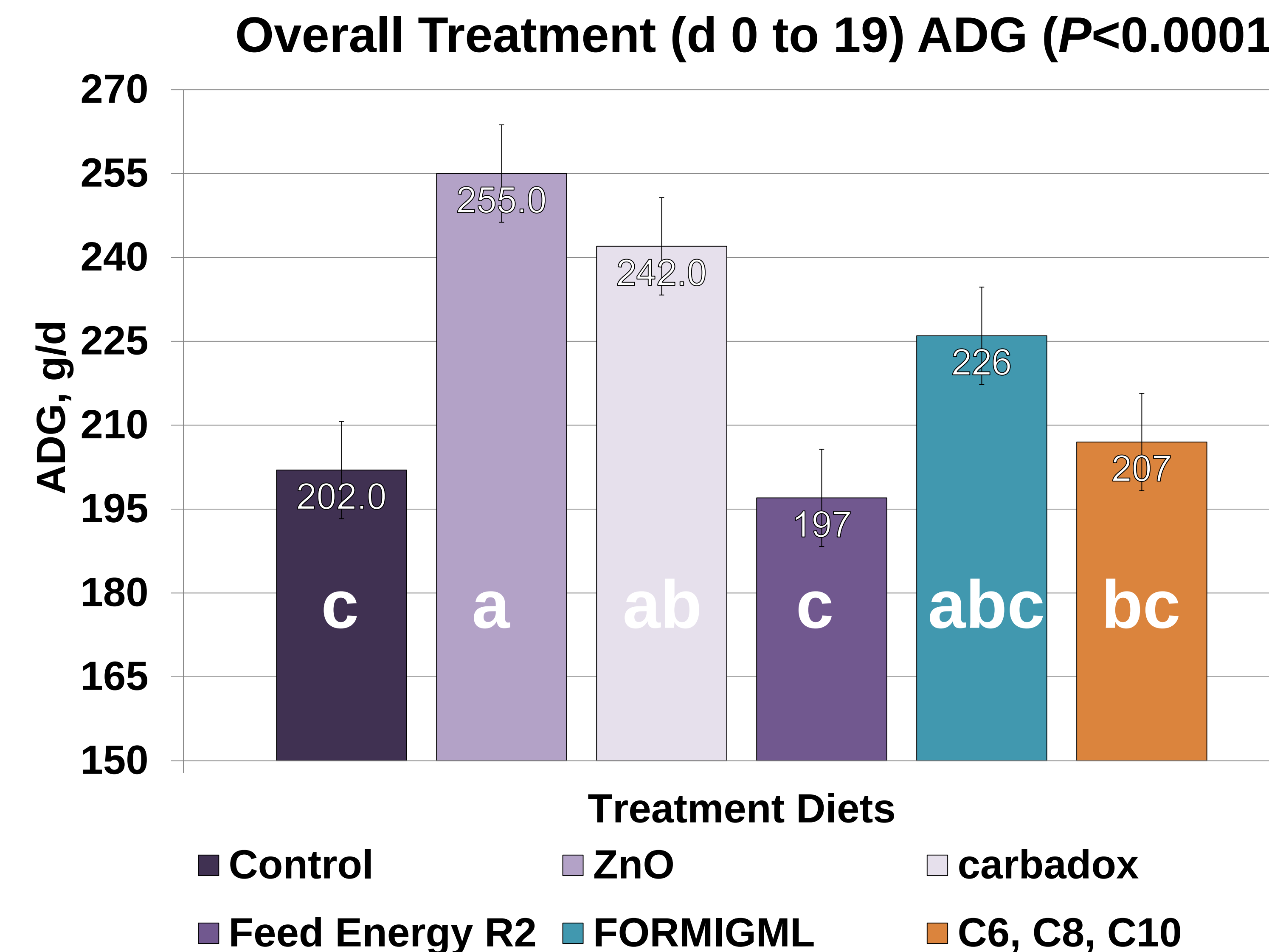
Objective

- To evaluate the effects of MCFA on nursery pig performance.

Experimental Procedures

- A study at the KSU Swine Unit used 360 weanling pigs (DNA 200 x 400; 5.4 ± 0.2 kg).
- Treatments
 - 1) Control
 - 2) ZnO 3,000 ppm in Phase 1 and 1,500 ppm in Phase 2
 - 3) carbadox 50 g/ton
 - 4) 1% Feed Energy R2 (Feed Energy Corp., Des Moines, IA)
 - 5) 1% FORMI GML (ADDCON, Bitterfeld-Wolfen, Germany) 6) 1% C6, C8, C10
- The treatments were tested for 35 days with treatment diets being fed from d 0 to 19 and d 20 to 35 being a common phase.
- 10 replicates/treatment and 6 pigs/pen in a completely randomized design.
- Pens were the experimental unit.
- Alpha-value was set at $\alpha < 0.05$.
- Weekly recordings were collected of pig weights and feed disappearance.
- Statistics were ran using SAS GLIMIX procedure with data considered significant if $P < 0.05$.
- Regarding the abc on the results, those that do not share a common letter differ $P < 0.05$.
- Appreciation is expressed to Dr. Mark and Kim Young Undergraduate Research Fund and ADDCON.

Results



Conclusions

- Carbadox and ZnO resulted in the greatest nursery pig performance.
- Diets containing MCFA improved pig performance.
- MCFA show promise as a feed additive that can replace carbadox and ZnO