

Effect of feeding  
Thoroughbreds a high  
unsaturated or saturated  
vegetable oil supplemented  
diet for 6 months  
following a 10 month fat  
acclimatization diet.

Harris PA<sup>1</sup>, JD Pagan<sup>2</sup>, KG Crandell<sup>2</sup>.1998.

<sup>1</sup>Waltham Centre for Pet Nutrition, UK

<sup>2</sup>Kentucky Equine Research, Inc., Versailles, KY

Proc. 5<sup>th</sup> International Conference  
on Equine Exercise Physiology,  
Utsunomiya, Japan (In press).

# Purpose

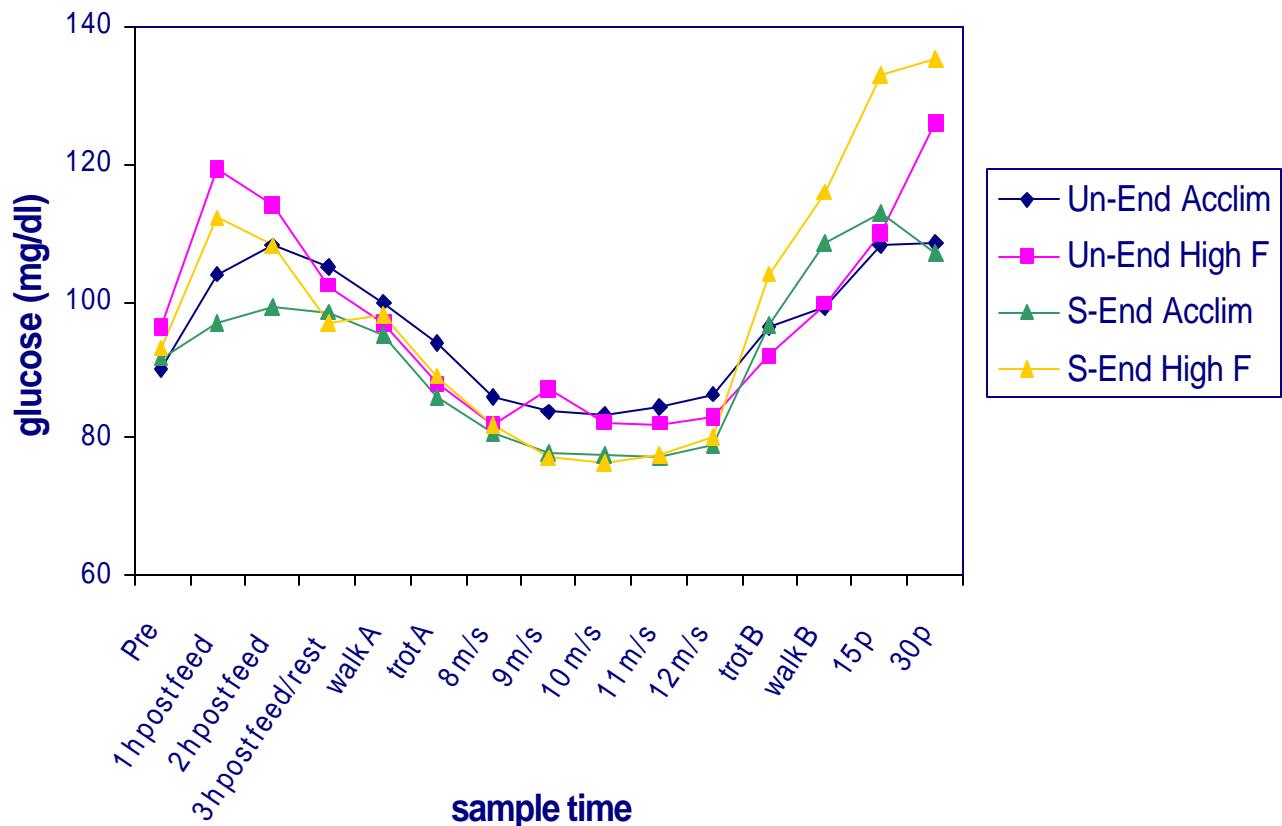
The intent of this study was to investigate the effects of feeding a diet in which approximately 20% of the digestible energy came from supplemental fat (saturated or unsaturated vegetable oil) for six months following a ten month acclimation period in which supplemental fat provided approximately 13% of the digestible energy.



# Results

No significant effect in glucose tolerance test responses for the saturated (S) or unsaturated (UN) treatment groups was observed. Apparent total fat digestibilities at the end of the 16 month study for the four horses were 74.8 and 76.5% (S) plus 79.1 and 71.9% (Un) respectively, and these had risen from 58 and 66% (S) and 58 and 60% (UN) during the first week of acclimation.  $VLa_4$  and  $V200$  were not significantly affected by either diet during the high fat period. Dry matter, crude protein and fiber apparent digestibilities were similar for both treatments. No adverse effects of feeding S or UN on coat condition or hoof appearance were seen.

Plasma glucose during exercise



# Implications

No adverse effects were identified as a result of feeding a diet supplemented with either a saturated or unsaturated vegetable oil for six months at ~22% digestible energy after a ten month acclimation period in which supplemental fat provided ~13% of the digestible energy.

