

Influence of Diet on Horse Behaviour and Riding Characteristics

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Introduction

- Feed evaluation for horses involves more than the energy and nutrient contents
- Information about the response of horses to different diets is also needed regarding:
 - behaviour and riding properties
 - muscle metabolism
 - gut fermentation
- Focus on behaviour and riding characteristics:
- Earlier work has shown that including fat in the diet has a positive effect on behaviour
- But most information of the influence of the diet is anecdotal
- More scientific knowledge about this may maximize the performance and minimize problems of sport, riding school and leisure horses

Object

To compare the effects of two oat varieties differing in fat content on riding properties and behaviour of Swedish warmblood (SWB) horses

Results and discussion

Some tendencies was found:

- The trainers found horses fed high fat oats less susceptible to disturbances ($P < 0.1$)
- The riders found horses fed high fat oats being more forward thinking and somewhat more on the aids ($P < 0.1$).
- Most of the differences were attributed to the three mares
- Large individual differences in the challenge test, but no effects of oat variety

Conclusions

- There might be some influence of diet on behaviour and riding properties
- The response seems to be individual
- Further development of methods is needed to assess behavioural responses to diet

Material and Methods

Oat varieties:

Petra (4,5 % fat) and Matilda (10 % fat)

Horses: 13 SWB (1 stallion, 9 geldings, 3 mares)

Feeding: 1-4 kg oats, haylage and hay and minerals

Fat content of the total diets were

1.7 % (Petra) and 3.9 % (Matilda)

Exp. design: Latin square, two 7 weeks periods

Assessments: Weekly by riders and instructors, using a detailed protocol on linear scoring of behaviour and riding properties

Behaviour: challenge test, the horse free in a riding arena, a sudden exposure of a novel object