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THE INFLUENCE OF FRUIT FLAVORS ON FEED PREFERENCE IN THOROUGHBRED HORSES

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Introduction

Many feed flavors are added to equine rations in an attempt to improve palatability. Burton et al. (1983) studied the effect of adding three different feed flavors (apple, caramel and anise) to a pelleted horse diet. They found no improvement in feed consumption with these particular flavors. Fruit flavors are often added to horse feeds and supplements. There has been little work to substantiate their effectiveness in improving palatability. Therefore, the following preference test was conducted to evaluate if rate of intake of oats could be influenced by the addition of fruit flavors.

Methods and Materials

Eight mature Thoroughbreds (2 mares and 6 geldings) were used in a replicated 4 x 4 Latin square two choice preference test. The four flavors tested were apple, cherry, teaberry and citrus on a wheat midds carrier. Two horses per period were offered each treatment along with a control in buckets hanging side by side in a 10' x 10' box stall. Each bucket contained 2 kg of whole oats. The control had 100 ml of water added just prior to feeding. Two grams of each flavor were dissolved in 100 ml of water and added to the treatment bucket just prior to feeding. This level of flavor inclusion is the amount typically added to horse feeds. The horses were allowed to eat from both buckets for 5 minutes. The amount of oats remaining in each bucket at the end of this time was recorded. Each treatment was offered for three consecutive days, in the morning and in the afternoon. The control and treatment buckets were switched at each feeding.

Results and Discussion

There was a trend towards higher consumption of the flavored oats as compared to the control. The flavored oats were consumed at an average rate of 147 g/minute while the rate of intake for the plain oats was 130.5 g/minute. The cherry flavored oats were consumed at a significantly higher rate of intake compared to the control (133 g/min versus 153 g/min) ($p < .05$).

The order of preference of the plain oats and flavored oats can be described as:

Control < teaberry = citrus = apple < cherry

The results of this study suggest that the palatability of oats can be slightly improved by the addition of fruit flavors. Cherry appears to have the greatest influence on palatability. More research is needed to more clearly define the role that flavors play in enhancing palatability of horse rations.