

Study shows horses more hydrated with hay biscuits

Rutgers University worked closely with Dr. Harlan Anderson from Idle Acres in Cokato, Minn., to test his theory that the Happy Horse Total Mixed Ration biscuits they produce would keep horses more hydrated than the traditional long stem hay.

We also compared the biscuits to a commercially available hay block that is manufactured for the same reason.

The study compared horse hydration, water intake, manure output, fecal moisture, bodyweight and total forage consumption.

We used 12 mature Standardbred mares housed here on Cook Campus, they were assigned to one of three treatment groups with 4 horses in each group.

The treatments included hay biscuits (Idle Acres Happy Horse Total Mixed Ration biscuits), hay blocks (commercially available compressed hay block), and long stem moderate quality grass hay.

The horses were fed the treat-



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ments in stalls during the overnight hours and in paddocks during the day, free choice or up to 3-percent body weight.

The biscuits and blocks had water added per manufacturer instructions.

Horses were fed and data were collected for five days followed by a 10-day period where they were only kept only in paddocks and fed long stem hay, this period we called a 'wash out' period.

After the wash out period the horses switched treatment groups so that each horse got all three treatments over the 45-day period.

Feed intake, water consump-

tion (water in their buckets plus the water added to feed), manure output (feces minus urine was collected from unbedded stalls with rubber mat floors), and fecal moisture were collected during the morning after the overnight stalled portion only.

Horse bodyweight, body condition score and a blood sample for packed cell volume to help assess horse hydration were taken on the mornings of Day 1 (Monday) and Day 5 (Friday) of each collection period.

There were no differences between treatment groups with the horse's PCV over course of the study.

The horses fed the blocks lost weight after the five-day collection; about 44 pounds while the horses fed the biscuits gained about 20 pounds and hay fed horses maintained body weight.

This could be due to the lower average feed intake observed over the five-day collection by the block fed horses, compared to those eating hay and biscuit.

The horses fed the blocks consumed about 10 pounds per day while the biscuit and hay fed horses consumed 27 to 32 pounds per day in dry matter alone (not including water added).

Water intake over the collection period was higher in the biscuit versus the block and hay fed horses, with the horses fed the biscuits consuming about 18 gallons per day while the hay and block fed horses consumed only about 10 to 11 gallons per day.

The average manure produced

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during the five days of overnight collections was different between the treatments with the horses fed the biscuits being the highest with about 72 pounds of manure produced daily and the block fed horses being the lowest at about 27 pounds per day and about 47 pounds for the hay fed horses.

This makes sense given the totals for daily intake followed this same trend.

However, fecal moisture was not different between treatments.

In conclusion, when horses were fed free choice forage the commercially available hay biscuits with water added it created higher water and feed intake, which could be beneficial during times of stress, traveling or winter conditions where water consumption and weight loss is a concern.

For more information about the study contact me by e-mailing carey.williams@rutgers.edu (I receive no profits from the sale of any Idle Acres products).

For more information on the Idle Acres products visit <http://square-mealfeeds.com/idleacres/#!/home>.