

P303 Effect of feeding amaferm and vitaferm on performance of holstein cows during a lactation cycle. R. O. Kellems*, A. Lagerstedt, D. Andrus, M. V. Wallentine, R. Jones and J. T. Huber. Brigham Young University, Provo, UT, and University of Arizona.

Following a three week adaptation period, 144 early lactation Holstein cows were assigned, based on milk flow, days in milk and lactation number, to three equal groups. Control ration (I) was balanced for energy, protein, minerals and vitamins; the Amaferm (II) had 3 grams of *Aspergillus oryzae* culture and VitaFerm (III) had 90 grams of mixture of *Aspergillus oryzae* + Mineral-Vitamin Mixture added to the control ration. The control ration consisted of earlage, alfalfa silage, rolled corn/barley, whole cottonseed and protein-mineral-vitamin pellet. FCM (3.5%) during the adaptation period was 33.1, 33.0, 32.9 kg, respectively for groups I, II, and III. Feed consumption did not vary between groups ($P>.05$). Average milk production, butterfat (%), FCM (3.5%) were 27.1 kg, 3.67%, 28.4 kg; 28.5 kg, 3.63%, 29.5 kg; 27.5 kg, 3.66%, 28.7 kg; respectively for groups I, II, and III. No differences ($P>.05$) in body weights, body condition scores, average number of days to conception, services per conception and days to first service were observed.

P304 Effect of yeast culture on milk production response and apparent nutrient digestibility in early lactating dairy cows. M. J. Arambel* and B. A. Kent. Utah State University, Logan.

Twenty dairy cows in early lactation were allocated equally to one of two treatments based on milk production and days in milk. Treatments consisted of a total mixed ration (containing rolled barley, whole cottonseed, brewers dried grains, beet pulp, molasses) with or without added yeast culture (*Saccharomyces cerevisiae*, 90 g/d). Treatment groups were fed the total mixed ration ad libitum for 10 weeks. Individual feed intake and milk yield were recorded daily. Milk composition was analyzed weekly (am-pm composite) for percent protein, fat, lactose, and solids-not fat (SNF). Individual feed and fecal samples were collected for 3-d at the end of the experimental period and composited to determine apparent nutrient digestibility.

Mean daily milk yield was not significantly different ($P>.05$) between treatments (37.9 versus 36.5 kg/d, for control and yeast culture, respectively). Percent milk fat, protein, lactose and SNF were not significantly affected ($P>.05$) by treatment. Overall apparent nutrient digestibility was unaffected ($P>.05$) by treatment.

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P305 Effects of various commercial silage inoculants on preserving quality of alfalfa silage. J.A. Jackson* and Joe O'Leary. University of Kentucky, Lexington.

First cutting alfalfa (35% DM) was harvested and ensiled in 19 1 mini-silos (14 per treatment) to examine the effect of 4 different commercial bacterial inoculants on forage quality. Treatments were control (C), Pioneer microbial inoculant (P), Chris Hansen's microbial inoculant (B), Star-Labs microbial inoculant (S), and Kermin Industries microbial inoculant (K). All inoculants were applied per manufacturer's recommendations. Two silos each were opened on days 1, 2, 4, 7, 14, and 21 for pH and microbial population determinations. Measurements determined at termination (21 d) were pH, dry matter (DM), crude protein (CP), acid detergent fiber (ADF), neutral detergent fiber (NDF), lactic acid and acetic acid. B had a lower pH by day 2 when compared with all other treatments. B and P reduced pH most rapidly and tended to be lower at the end of the trial. S and K had pH changes similar to control. No differences were observed in most parameters measured except lactic acid. Lactic acid content was 6.06, 5.36, 5.20, 4.96, and 4.89% of DM for the B, P, K, S and C treatments, respectively. B and P tended to have a more positive influence on pH decline and lactic acid content than did S and K.