

A-MAX Concentrate China Dairy Research Trial in Late Lactation

Introduction: A feeding trial was conducted at SanYuan Dairy Farm in China with Holstein dairy cows.

Objective: To examine the effect of adding A-MAX™ Concentrate in late-lactation rations.

Materials & Methods: Forty Holstein dairy cows in late-lactation were placed into two groups based on parity, milk yield, total days of lactation, and body condition score (BCS). They received the same feed ration, feeding procedure, and environmental control. There were two treatments in this experiment:

- Control
- A-MAX: Control diet plus 50 grams (per day, per cow) A-MAX Concentrate

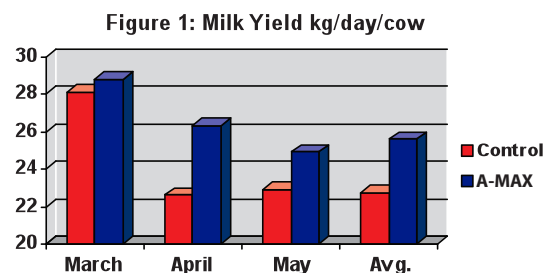
The experiment lasted for 54 days from March 24 to May 16. Data was collected at the beginning (March 24), middle (April 11), and the end (May 15) of the trial. Milk yield, milk composition, and BCS data were measured initially and the means of these criteria are shown in Table 1.

Results: The cows receiving A-MAX in the ration had higher milk yield as compared to the control group. The control group milk yield decreased by 5.35 kg/day during the trial, while the A-MAX group decreased by 3.2 kg/day. Therefore, the A-MAX group's decrease was 2.15 kg/day less than the control group. The average milk yield during the experiment was 25.6 kg/day for A-MAX group and 22.75 for control group, which is a difference of 2.95 kg/day. Complete results on milk yield are shown in Table 3 and Figure 1.

The results for milk composition are shown in Table 2. Milk fat was increased by 0.14% for the A-MAX and decreased 0.18% for the control group. Milk protein increased 0.12% for the control group and decreased 0.02% for the A-MAX group. None of these differences were statistically significant.

The body condition score for the control group was essentially unchanged during the trial, 2.85 at beginning and 2.89 at the end; while the A-MAX increased by 0.33 during the trial, 2.55 at the beginning and 2.88 at the end. Supplementation with A-MAX displayed an increase in BCS of 0.29 over the control group. An optimal BCS during late-lactation is 3.25. It is notable that in this experiment there was a remarkable improvement in body condition in the A-MAX group, which shows that Yeast Culture supplementation has a positive effect on BCS in late-lactating dairy cattle. We can theorize that this would translate into a better production on the next parity.

Conclusions: Adding A-MAX Concentrate to rations for late-lactation dairy cattle resulted in significantly higher milk yield, 2.1 kg/day, and increased BCS over the control treatment.





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Results Table:

Table 1: Initial Status of Cows

Parameter	Parity	Days in Lactation	Milk Yield kg/day	BCS
Control	2.45	193	28.1	2.85
A-MAX™	2.70	200	28.8	2.55

Table 2: Summary of Milk Composition

	Treatment	March	April	May	Exp. Avg.	Difference
Milk Fat %	A-MAX:	4.79	4.65	5.20	4.93	0.14
	Control:	4.81	4.83	4.43	4.63	-0.18
Milk Protein %	A-MAX:	3.36	3.30	3.37	3.34	-0.02
	Control:	3.27	3.40	3.38	3.39	0.12
Lactose %	A-MAX:	4.85	5.00	4.94	4.97	0.12
	Control:	4.78	5.03	4.99	5.01	0.23
Somatic Cell	A-MAX:	651,500	438,200	680,500	589,300	-92.23
	Control:	478,200	444,900	338,100	391,500	-80.72

Table 3: Milk Yield (kg/day/cow)

Treatment	March	April	May	Exp. Avg.	Difference
A-MAX:	28.8 ^a	26.3 ^a	24.9 ^a	25.6 ^a	-3.20 ^a
Control:	28.1 ^a	22.6 ^b	22.9 ^b	22.75 ^b	-5.35 ^b
Difference	0.70	3.70	2.00	2.95	2.15

a,b indicates P<0.05

