



Utah Dairy



GLUCO BEST[®]
The Protected Glucose[®]



SOY BEST[®]
High Bypass Soybean Meal
with Fresh Soy Gums

Utah Trial design



GLUCO BEST[™]
The Protected Glucose™

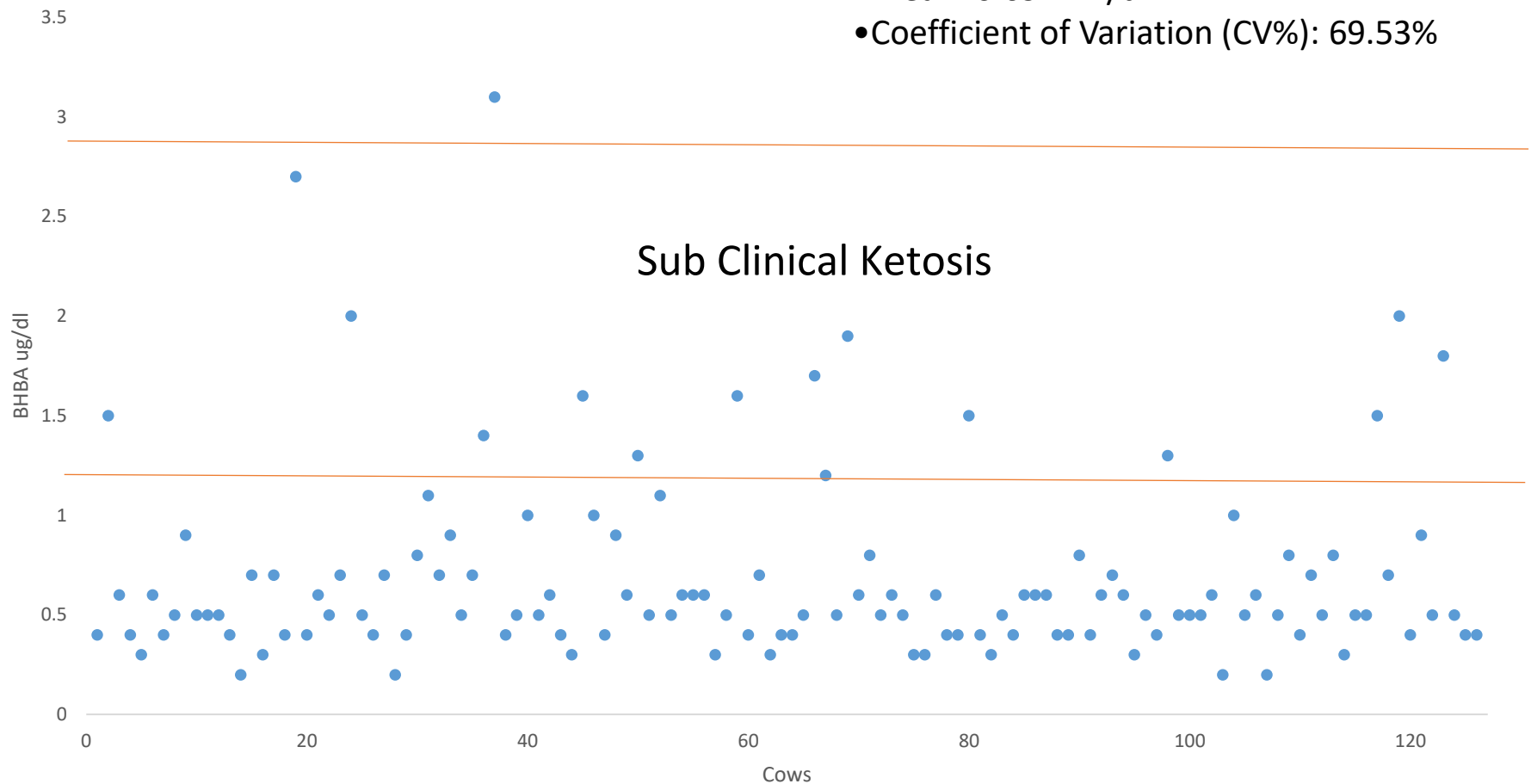
- **Trial Enrollment (April 2023):**
 - Holstein Cows: 95 initial sample
 - 69 Gluco Best fed
 - 21 Control fed diet
- **Dietary Groups:**
 - **Gluco Best Diet:**
 - Duration: 30 days after calving
 - Feeding Rate: 4 lbs per cow per day
 - Holstein Cows: 69 (62 cows last control)
- **Pre-Feeding Assessment:**
 - Blood Metabolites Measured: Glucose and BHBA
 - Assessment Purpose: To evaluate the risk of ketosis
 - Number of Cows Assessed: 127
- **Data Collection:**
 - Milk Production Recorded: Daily
- **Data Analysis:** Used a randomized complete block design
 - Random Effect: Cows, Fixed Effects: Treatment and Days Blocked, Covariate: Previous lactation milk production of each cow

Blood BHBA concentration pre calving

- **BHBA (Beta-Hydroxybutyrate) Levels:**

- Mean: 0.69 mm/dL

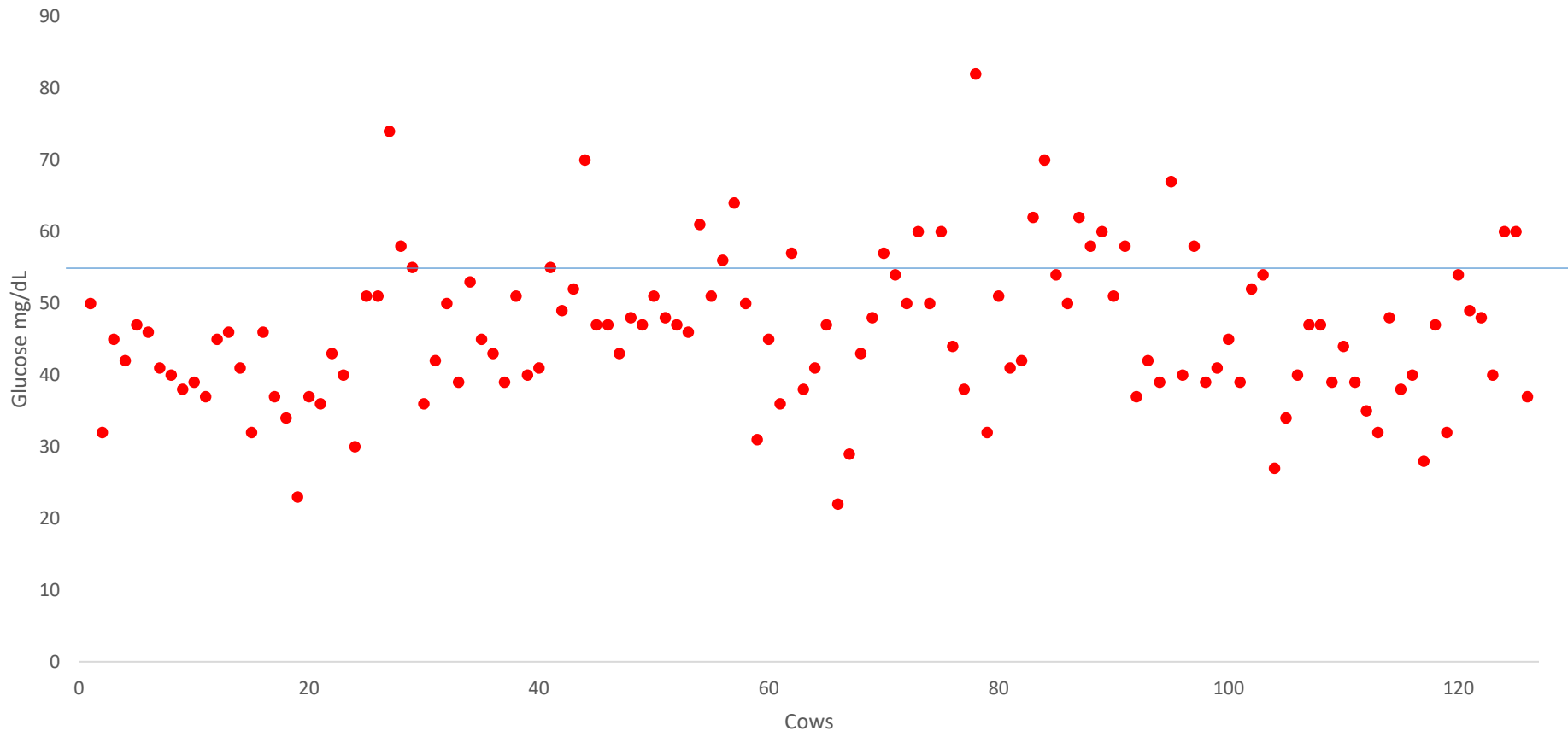
- Coefficient of Variation (CV%): 69.53%



Blood Glucose concentration pre calving

- **Glucose Levels:**

- Mean: 45.96 mg/dL
- Coefficient of Variation (CV%): 22.37%





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Utah Blood analysis



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Blood Metabolite Analysis:

Ketosis Assessment:

- Subclinical Ketosis: 16 cows
- Normal: 111 cows
- Subclinical Ketosis Percentage: 14%

Observations and Insights:

- The blood results indicate excellent transition management.
- Notably, the coefficient of variation, expressed as a percentage, is relatively high.
- Typical variation levels are around 20% for BHBA and 5% for glucose.
- This suggests an opportunity to enhance milk production.



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Number of Cows per interval

	Control	Gluco Best
Day intervals	Cows N	Cows N
0-30, days	27	67
30-60, days	27	67
60-90, days	27	67
90-120, days	27	67
120-150, days	27	67
150-180, days	27	67
180-210, days	27	67
210-240, days	25	66



Utah Dairy Holstein Milk production

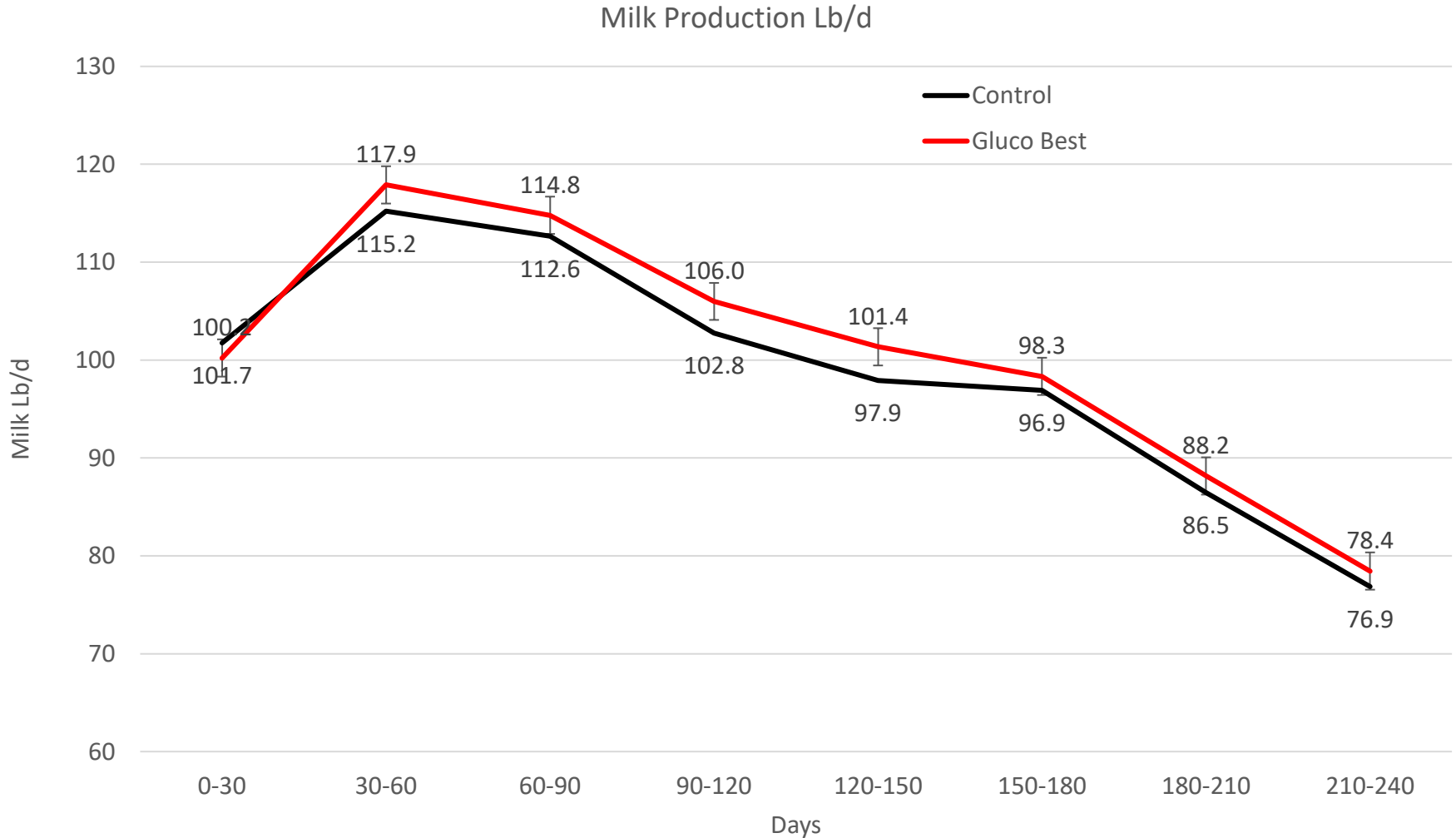


	Control	Gluco Best	SEM	P value	Dif	
Cows, N	27	69				
Milk Production	98.8	100.6	1.9	NS	1.85	
Days in Milk	Control	Gluco Best	SEM	P value	Dif	Milk in period lb-d
0-30, Lb/d	101.7cd	100.2de	1.9	0.001	-1.54	-46
30-60, Lb/d	115.2 ^a	117.9a	1.9		2.67	80
60-90, Lb/d	112.6ab	114.8ab	1.9		2.14	64
90-120, Lb/d	102.8cd	106.0c	1.9		3.23	97
120-150, Lb/d	97.9e	101.4de	1.9		3.45	104
150-180, Lb/d	96.9e	98.3de	1.9		1.43	43
180-210, Lb/d	86.5f	88.2f	1.9		1.69	51
210-240, Lb/d	76.9gh	78.4g	1.9		1.59	48
						440

Different letters represent p<0.001



Utah Dairy Holstein Milk production





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Preliminary summary



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- Blood analysis
 - BHBA and glucose blood values show and excellent transition management protocol
 - Nevertheless the CV% calculated as the standard deviation/mean is bigger than normal showing room for improvement with Gluco Best.
- Milk Production
 - Feeding Gluco Best for 30 days after calving increased milk production by 440Lb of milk in 240 days