

Why AjiPro® -L is better than blood meal

While blood meal is widely used in dairy cow formulation to supplement lysine and other amino acids, it has a significant level of variability in bioavailability depending on quality, species, and processing plants. Blood meal’s variability greatly affects the cow’s lactating performance and income over feed cost.

Objective

Ajinomoto had conducted the blood meal survey with an objective to investigate this variability in blood meal.

Method

Sample size: n=89 (porcine, ruminant, poultry, blend)

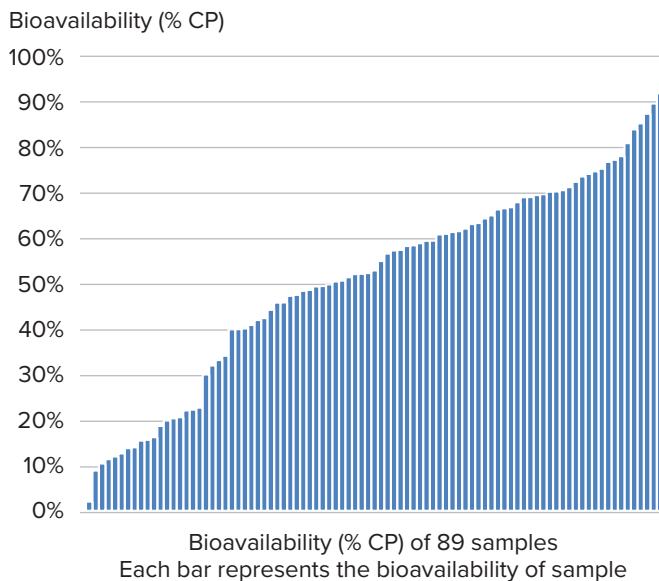
Survey period: 2015–2018

Analysis: Rock River Labs

Methodology: Modified Three Step Procedure (mTSP)

Result

Blood meal has a high degree of variability as shown in the graph below.



Bioavailability comparison chart

	Blood meal average	AjiPro®-L**
RUP (% of CP)	78.8	80
Intestinal digestibility (% of RUP)	64.5	80
Bioavailability (% of CP)	50.8	64
CV* of Bioavailability (% of CP)	43.8	7.19
Lys (% of CP)	8.77	100
Metabolizable Lys (g/100g)	3.62	25.6

* CV is Coefficient of variance = Standard Deviation / Average
CV is expressed as percentage of the mean, so it is a consistent metric to compare variability.

** AjiPro®-L sample size: n=336

- AjiPro®-L has higher bioavailability compared to blood meal average.
- AjiPro®-L has lower CV of bioavailability compared to blood meal average.
- AjiPro®-L has a significantly higher concentration of lysine than blood meal average.

AjiPro®-L guarantees 7 times higher supply of MP-Lys in a consistent manner compared to blood meal.

Blood meal is very variable, even within the same species or the same processing plant. Due to this inherent variability, using blood meal can lead to unpredictable lactating performance, thereby adversely affecting income over feed cost.

	Species	Processing Plant
	Porcine blood meal (n=60)	Single porcine blood meal processing plant (n=15)
RUP (% of CP)	81.6	82.0
Intestinal digestibility (% of RUP)	70.6	93.0
Bioavailability (% of CP)	57.2	76.2
Bioavailability High/Low	92.1 / 12.5	92.1 / 58.9
Metabolizable Lys (g/100g)	4.10	5.63
Metabolizable Met (g/100g)	0.39	0.49
Metabolizable His (g/100g)	3.23	4.60

Cost comparison

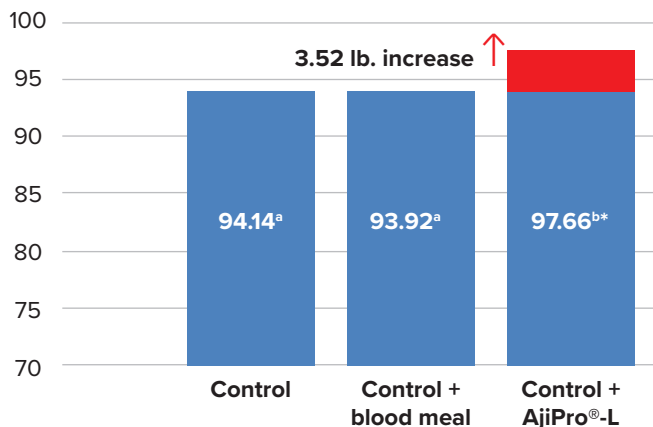
AjiPro®-L costs less than blood meal when supplying an identical amount of metabolizable lysine, even when blood meal price is low.

	Blood meal average	AjiPro®-L
Price (\$/st)	700	3,629
Supply (lb.)	0.500	0.071
Metabolizable Lys supply (gram)	8.1	8.1
Cost (¢)	17.50	12.92

Lactating performance

AjiPro®-L leads to higher lactating performance compared to blood meal.

Milk production (lb.)



	Control	Control + blood meal	Control + AjiPro®-L
Metabolizable lysine (g/day)	153.1	166.1	166.8
Lysine (% metabolizable)	5.95	6.27	6.38

* Different letters indicate significant differences between groups (p<0.05). Trials performed at Spruce Haven Farm and Research Center, Auburn, NY in 2012. 72 multiparous cows, 18 cows per treatment with 4 treatments.



Learn about AjiPro®-L at www.AjiPro-L.com and contact technical representatives for more information.

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