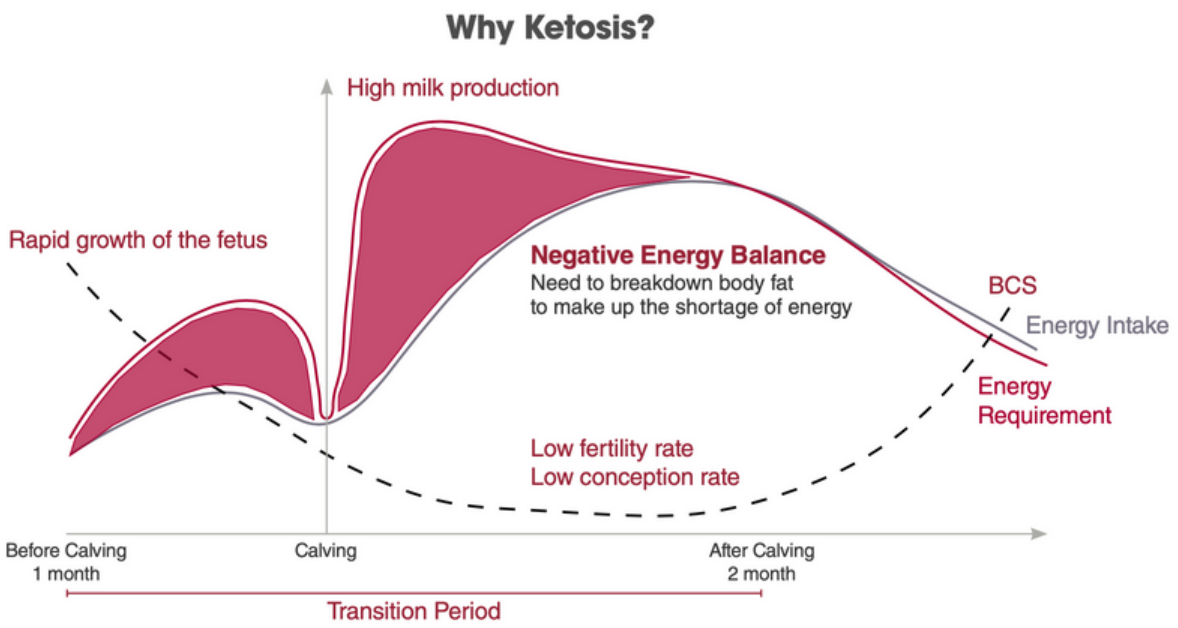
LIPO En+

Higher plasma glucose and insulin, lower NEFA and BHBA



Ketotic cows often have low plasma glucose concentrations, especially in the transition period, therefore, demand high energy use to grow the foetus and produce good quality milk. During the negative energy balance, dairy cows need to break down body fat to make up for the shortage of energy. This will decrease body condition scores and reduce reproductive performance, including low fertility and conception rates. A recently recommended base treatment for ketosis is 300 mL of propylene glycol (PG) administered orally once daily for 5 d (Gordon et al., 2013).

The table below highlights data of a feeding trial comparing 300mL propylene glycol (oral) and 300g Lipo En+ (top dressing). Each group was made up of 10 dairy cows. Plasma glucose, insulin, NEFA, and BHBA levels were monitored every 2 hours over a period of 24 hours.

		Glucose	Insulin	NEFA	BHBA
	Unit	*mg/dL*	*µIU/dL*	*µEq/L*	*mg/dL*
Propylene Glycol Liquid (99%) 300 mL/cow	Baseline	55.1	1.39	411	9.20
	Delta[1]	12.6	7.88	-231	-5.39
	AUC min × unit	1073	321	-1464	-839
	24 h post-feeding	55.8	1.75	351	11.9
Lipo En+ Powder (65%) 300 g/cow	Baseline	54.1	1.60	404	9.53
	Delta[1]	15.8	12.36	-165	-5.53
	AUC min × unit	1545	483	-1814	-756
	24 h post-feeding	55.8	2.05	340	10.5

[1]Delta = maximum value – baseline value.
AUC = area under the curve.

① Higher Gluconeogenesis
② Lower Lipolysis

Lipo En+ showed higher levels of plasma glucose in gluconeogenesis. Similarly, the The Lipo En+ group had lower levels of ketone bodies in lipolysis. The trial suggests Lipo EN+ is more effective than propylene glycol in enhancing gluconeogenesis and reducing lipolysis.

Contact us

Technical
Josh Chiu: joshchiu@ecolexanimalnutrition.com

Sales & Marketing
Vera Teo: verateo@ecolexanimalnutrition.com
Melissa Loh: melissaloh@ecolexanimalnutrition.com