

Supplementing a combination of lysolecithins, a synthetic emulsifier and monoglycerides, supports bird welfare and performance of broilers

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Introduction

Optimizing feed costs and consumer concerns regarding animal welfare, remain a challenge for the broiler industry, fuelling interests in solutions that can reduce production costs and/or support welfare. LYSOFORTE® EXTEND (LEX), is a combination of lysolecithins, a synthetic emulsifier and monoglycerides, available in both liquid and dry form, intended to support feed digestion and nutrient absorption. This study investigated the application of LEX in broiler diets containing two different energy levels, to elucidate the effect on bird welfare and performance.

Materials and Methods

- 1248, day-old Ross 308 broilers were assigned to a 42-day study
- 13 pen replicates/treatment (16 birds/rep).
- Feed intake (FI) and weight were measured on day 0, 10, 21 and 42
- On day 42 a litter sample was collected from each pen (mixed from 5 sites within the pen) and two birds per pen were assessed for footpad lesions.

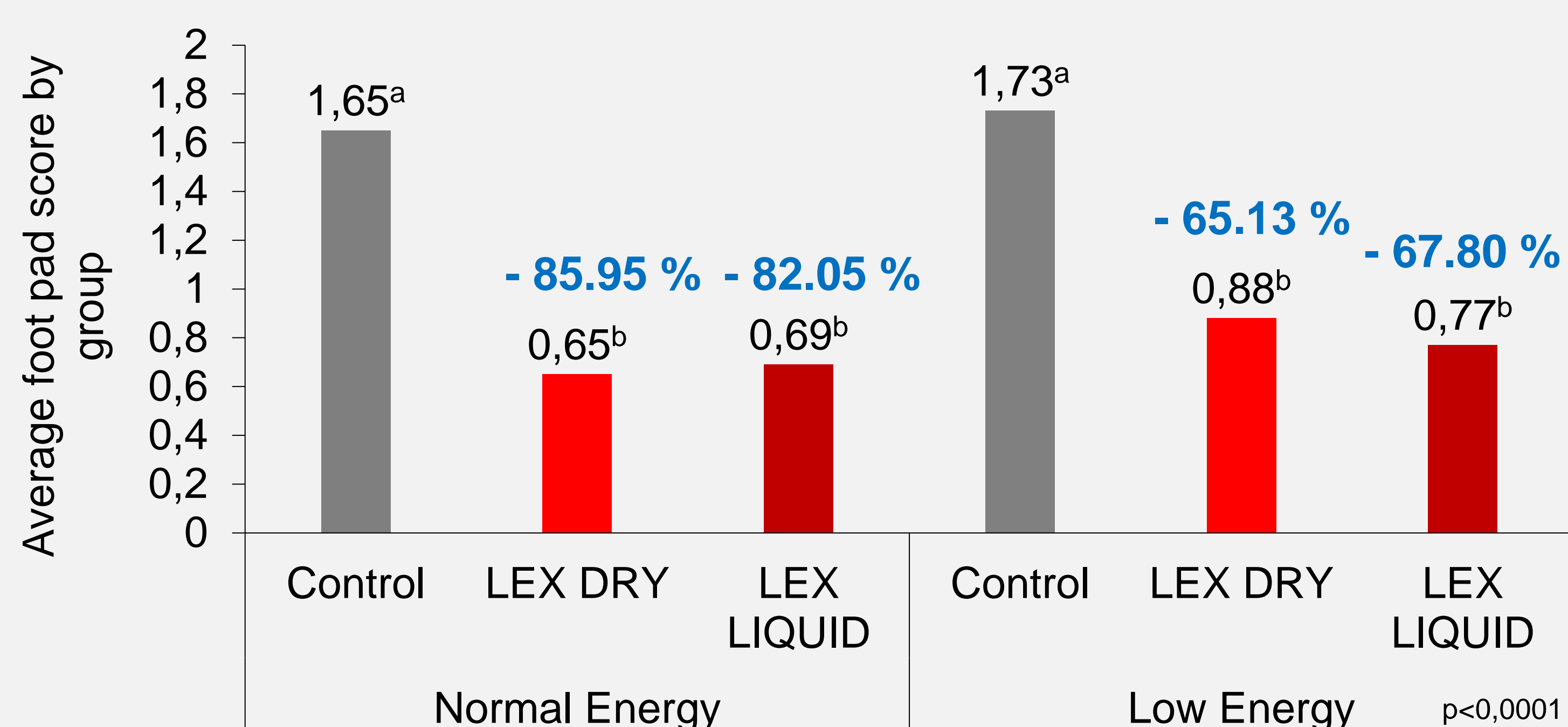
Energy Level	Treatment
Normal Energy (NE)	Control
	Control + LEX Dry 500g/t
	Control + LEX Liquid 300g/t
Low Energy (LE) (-90kcal in starter and -100kcal in grower and finisher phase)	Control
	Control + LEX Dry 500g/t
	Control + LEX Liquid 300g/t

Results

	Normal Energy			Low Energy			SEM	P-Value		
	Control	LEX DRY	LEX LIQUID	Control	LEX DRY	LEX LIQUID		Energy	LEX	Energy*LEX
BWG day 0-42	2718	2829	2895	2722	2787	2893	60.994	0.8021	0.0331	0.9242
FI day 0-42	4479	4545	4611	4584	4636	4783	67.771	0.0400	0.0737	0.8376
FCR* day 0-42	1.649	1.607	1.595	1.698	1.664	1.656	0.0208	0.0027	0.0747	0.9560

	% dry matter in litter day 42
Normal Energy	
Control	50.62 ^b
NE + LEX Dry	68.13 ^a
NE + LEX Liquid	66.33 ^a
Low Energy	
Control	49.44 ^b
LE + LEX Dry	64.32 ^a
LE + LEX Liquid	66.10 ^a
Pooled Standard Error	2.019
P Value Energy	<0.0001

Fig. Effect of adding LYSOFORTE EXTEND in dry or liquid form in the diet, on average foot pad health by group (d42)



Score 0 = no evidence of damage; 1 = mild damage; 2 = severe damage

CONCLUSION

- Regardless of the energy content of the broiler diet, adding a combination of lysolecithins, a synthetic emulsifier and monoglycerides, resulted in improved bird growth
- In a low energy diet, LEX enabled to achieve a similar feed efficiency as when feeding a normal energy diet
- The use of the LEX also promoted a better litter quality and footpad health supporting animal welfare

