

Effects of Increasing GelptoForte dosage in newborn piglets



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Introduction

- The importance of iron supplementation in piglets is known, but the proper dosage rate is unknown
- Iron deficiency in piglets effects the growth rate and iron status

Objectives

 To evaluate the effects of GleptoForte dosage on nursing piglets and subsequent growth performance and hematological parameters.

Experimental Procedures

- 21-day experiment with 336 newborn piglets housed in a farrowing facility
- Six barrows and six gilts from each litter were allotted randomly to each treatment with 56 piglets per treatments
- Data was collected through blood collection on d3, d11, and d21 via jugular venipuncture
- Average daily gain and body weight were measured

Experimental Diets

- The treatments included:
- 1) 50 mg iron injection
- 2) 100 mg iron injection
- 3) 150 mg iron injection
- 4) 200 mg iron injection
- 5) 200 mg iron injection + 100 mg booster

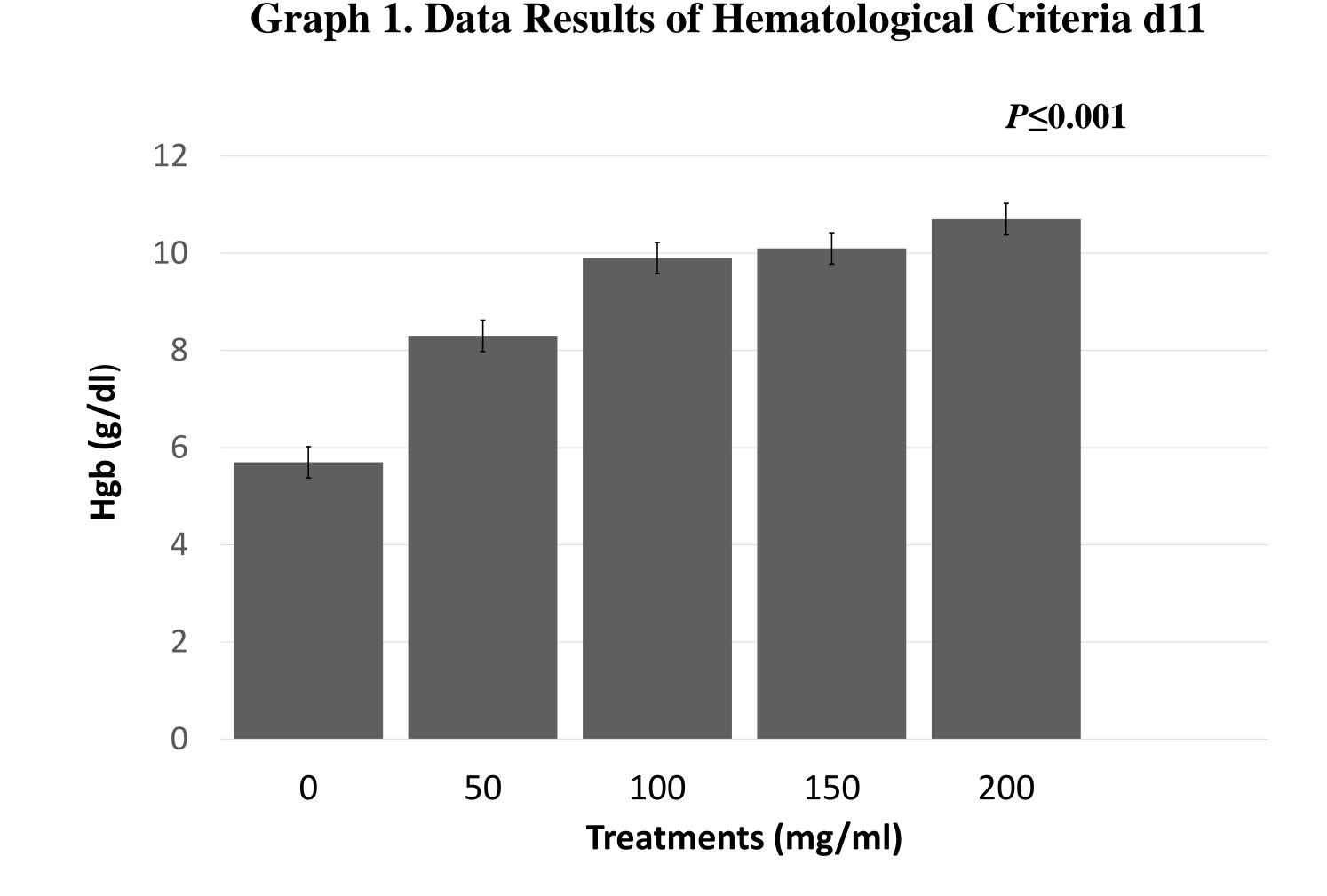
Results

- ADG of piglets increased (quadratic; P = 0.002) with an increasing dosage of GleptoForte
- BW increased (quadratic; P = 0.018) with an increasing dosage of GleptoForte
- There is no evidence of an increase in ADG or BW

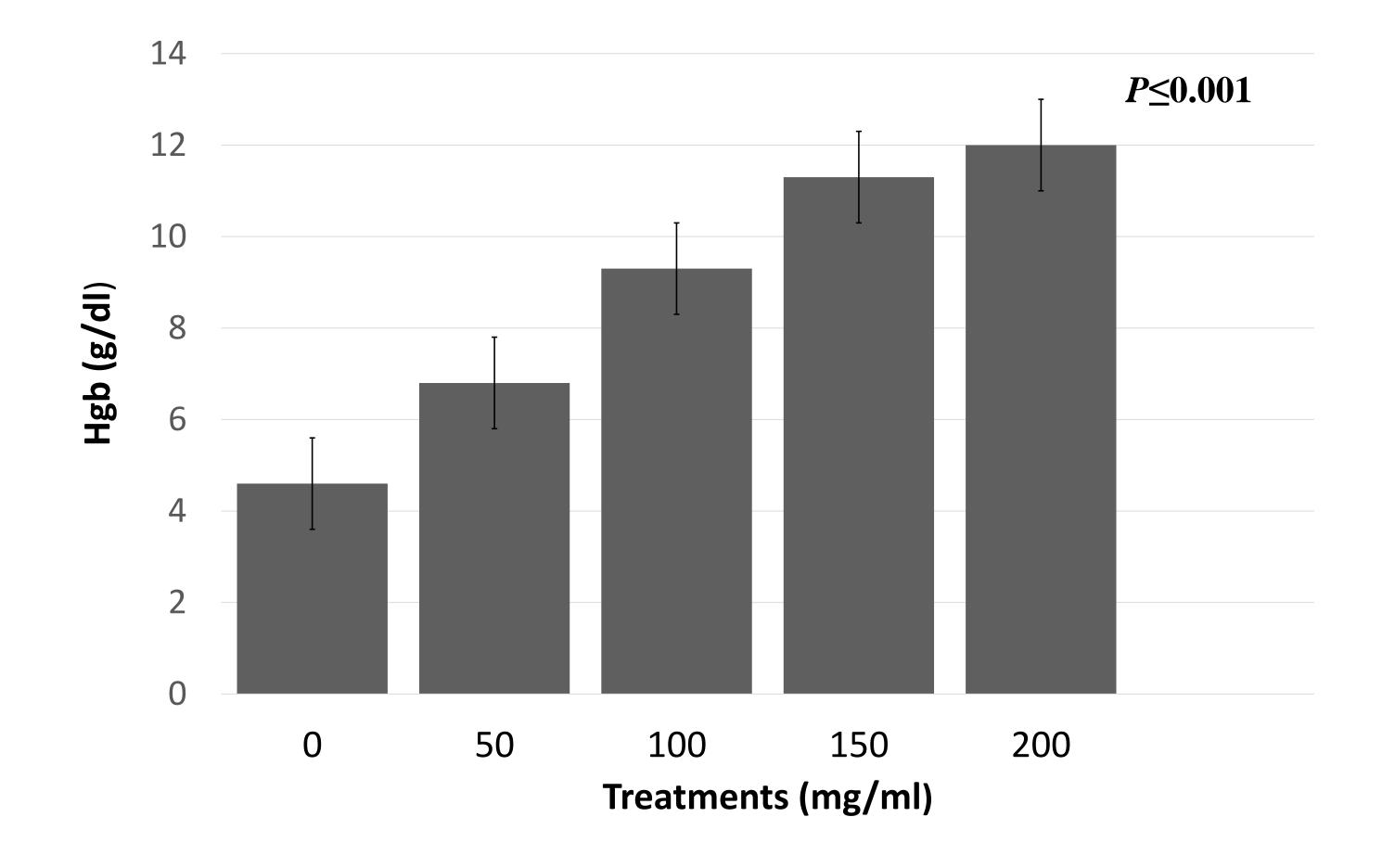
Table 1. Effects of Gleptoforte dosage on suckling pig performance¹

		D	osage	e, mg	/ml ²		_	Probability, P <		
						200			Qu	
						+			adr	200 vs.
						100	SE		atic	200 +
	0	50	100	150	200	3	\mathbf{M}	Linear ⁴	5	100^{6}
BW, lb										
d 3 ⁷	3.	20	3.8	3.9	3.8	3.9	0.1		0.9	0.556
	8	3.8					14	0.793	43	
d 11 ⁸	7.	7.0	7.8	7.9	7.8	7.7	0.2		0.0	0.702
	2	1.9					14	0.012	18	
J 01	10	12.	12.	12.	12.	12.	0.3		0.0	
d 21	.4	5	9	7	7	6	22	0.001	01	0.800
ADG,										
lb										
d 0 to	0.	0.3	0.3	0.3	0.3	0.3	0.0		0.0	
11	31	7	7	6	6	5	13	0.002	02	0.409
d 11 to	0.	0.4	0.5	0.5	0.5	0.5	0.0		0.0	
21	34	9	4	1	2	2	18	0.001	01	0.881
d 0 to	0.	0.4	0.4	0.4	0.4	0.4	0.0		0.0	
21	32	2	5	3	3	3	14	0.001	01	0.611

 $^{^{1}}$ A total of 336 suckling pigs (DNA 241 × 600) were used in a 21 d suckling experiment with 12 pigs per sow and 2 pigs within each sow individually treated for a total of 56 pigs per treatment.



Graph 2. Data Results of Hematological Criteria d21



Conclusions

- The negative control of 0 mg dosage of iron injection had the poorest growth performance and lowest blood parameters
- 100 mg treatment resulted in the highest growth performance
- There is no difference between the 200 mg and 200 mg + 100 mg booster

Support

Special thanks to Ceva Animal Health, LLC. of Lenexa, KS



²Gelptoforte (Ceva Animal health, LLC., Lenexa, KS) dosage administered 3 d after farrowing.

³Pigs were administered 200 mg at 3 d after farrowing and 100 mg 11 d after farrowing.

⁴Linear comparison of 0 mg to 200 mg dosage.

⁵Quadratic comparison of 0 mg to 200 mg dosage.

⁶Pairwise comparison between mean of 200 mg and 200 + 100 mg treatments.

⁷Represents 3 d after farrowing.

⁸Represents 11 d after farrowing.