



## Accredited Research:

# The Effect of Blue2 supplement in water on growth performance and morbidity and mortality of pigs during the nursery period.

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### Summary:

Providing nutrient dense liquids, such as Blue2®, in the water supply to newly weaned baby pigs is an approach that can mitigate dehydration and provide the animal with a readily-available source of energy immediately post-weaning. New research has been conducted to establish the impact of this product on nursery performance under commercial conditions.

### Experimental Study Design:

Design:	Randomized complete block design (RCBD) with a 2 × 5 factorial arrangement of treatments
Blocking factor:	Day of start of test
Number of blocks:	13

### Treatments:

1. Control (No Water Supplement)
2. Blue 2 – Administration for 2 days immediately post-weaning at a 1:128 dilution ratio.

### Allotment procedure:

- A replicate consisted of 10 pens.
- Upon arrival on the day of weaning, pigs were separated by gender.
- Within gender and day of weaning, pigs were individually weighed and formed into outcome groups of 10 pigs with similar body weight.
- Pigs were randomly allotted from within outcome group to 10 pens, with the process being repeated until there were 72 pigs per pen.
- Within replicate, pens were randomly allotted to treatment and immediately started on test.

### Results:

Detailed morbidity and mortality results are presented in Table 1.

#### Effects of Nutrient Dense Liquid Supplementation

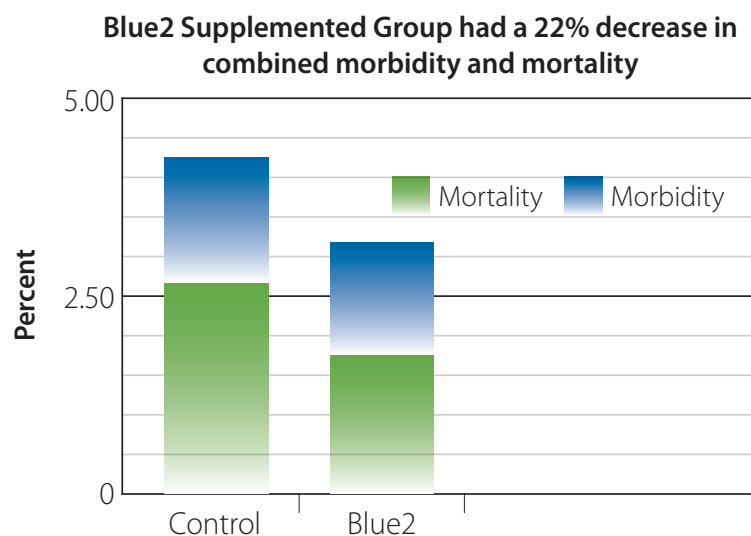
Combined Morbidity and Mortality levels were significantly lower ( $P=0.02$ ) for the pigs receiving Blue 2 supplementation treatment compared to those in the Control Treatment. Blue2 supplementation resulted in a 22% decrease in combined mortality and morbidity.

There was no effect of feeding Blue2 on overall ADG, ADFI, or G:F and the number of injectable antibiotic treatments per pen was similar between treatments.

**Table 1. Morbidity and mortality for the effect of a nutrient dense liquid, on growth rate of pigs during the nursery period.**

	Treatment	
	Control	Blue2
Total number of pigs	4613	4602
Mortality		
Number of pigs	120	87
Percentage of pigs, %	2.60	1.89
Morbidity		
Number of pigs	78	67
Percentage of pigs, %	1.69	1.46
<b>Total morbidity and mortality</b>		
<b>Number of pigs</b>	<b>198</b>	<b>154</b>
<b>Percentage of pigs, %</b>	<b>4.29<sup>a</sup></b>	<b>3.35<sup>b</sup></b>
Timing of morbidity and mortality, number of pigs		
Start - Week 2	49	34
Week 2 - 4	59	49
Week 4 - 6	55	35
Week 6 – End <sup>10</sup>	35	36

<sup>a,b</sup> Means within a row with different superscripts are different (P=0.02)



**Table 2. Economics**

	Control	Blue2	Difference	Pig Cost/1%	Savings/pig	ROI
Mortality	2.60%	1.89%	0.71%	\$0.60	\$0.43/pig	5.26:1
Morbidity	1.69%	1.46%	0.23%	\$0.30	\$0.069/pig	
Cost of Blue2 treatment:						
\$101.24/case    \$20.25/gallon    \$0.158/diluted gallon    0.3 gallon/pig/day x 2 days = \$0.095 total						