



**We've Got Your Back**

*Don't wait until it's too late to protect your swine against the harmful effects of DON and ZEN. Quantic Pulse helps to improve swine health and production—and helps improve your bottom line.*

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HEALTHY ANIMALS. HEALTHY FOOD. HEALTHY WORLD.®

***Break the Mold***



**Quantic™**  
**PULSE**



### Don't Wait Until It's Too Late

Mycotoxins represent a threat to your swine profits through poor production and reproductive performance—and two of the costliest of these threats are *deoxynivalenol* (DON) and *zearalenone* (ZEN). Too often producers are unaware of the presence of dangerous mycotoxins unless their swine exhibit symptoms or they send feed samples for pricey, time-consuming and often inconsistent tests.

Quantic™ Pulse nutritional specialty product is a new, economical and effective combination of ingredients designed to help producers reduce the likelihood of mycotoxin challenges. This blend of exceptional ingredients contains specific strains of yeast and a unique adsorbent that can reduce the negative impact of mycotoxins in swine feeds.

### Reduced Mold, Increased Bottom Line

Quantic Pulse helps control moisture in swine feed, which can limit the occurrence of molds known to produce a broad spectrum of harmful mycotoxins, including DON and ZEN. This reduction in mycotoxins can improve:

- Body weight (BW)
- Average daily gain (ADG)
- Average daily feed intake (ADFI)



By helping to limit mycotoxins, producers can potentially improve swine health and production—and avoid costs associated with reduced performance or discarding contaminated feed.

### The Quantic Pulse Advantage

In a 2019 contract research study, 124 barrows and gilts (12 ± 2 days post-weaning) were received and placed by sex in 24 pens of five head per pen. After a seven-day acclimation period, pigs were randomly assigned to experimental pens blocked by BW and sex. With eight replicate pens per treatment, the three treatment diets included a negative control (feed with no mycotoxins), a positive mycotoxin control (feed containing 4 ppm DON and 0.5 ppm ZEN from a naturally contaminated corn source) and the same positive mycotoxin control diet containing Quantic Pulse at an inclusion rate of 0.50% (10 lb per U.S. ton).



Average BW results are shown in Table 1. When compared to the negative control, the positive mycotoxin control diet significantly reduced ( $P \leq 0.05$ ) BW by seven days. This reduction was maintained for days 14 and 21. These results confirm a study published by Frobose et al. (2017) which reported that increased time of dietary exposure to 4 ppm DON exacerbated negative impacts on nursery pig performance.

**TABLE 1: Average Body Weights in Pounds**

Treatments	Initial	Day 7	Day 14	Day 21
1) Negative Control	17.2	21.3 <sup>a</sup>	28.6 <sup>a</sup>	38.2 <sup>a</sup>
2) Mycotoxin Control*	17.2	20.3 <sup>b</sup>	27.3 <sup>b</sup>	36.3 <sup>b</sup>
3) 0.50% Quantic Pulse*	17.2	21.2 <sup>a</sup>	28.8 <sup>a</sup>	38.8 <sup>a</sup>

\*Final supplemental dietary mycotoxins were 4 ppm DON and 0.5 ppm ZEN.  
<sup>a</sup><sup>b</sup>Means in columns with different superscripts are significantly different ( $P \leq 0.05$ ).  
 Phibro contract research report, Swine Services Unlimited, Inc., 2019.

Overall performance results are shown in Table 2. For ADG over the three-week period, the negative control pigs (no mycotoxins) and the mycotoxin-fed pigs with 0.50% Quantic Pulse gained 1.00 and 0.98 lb per day, respectively. These gains were significantly greater ( $P < 0.05$ ) than the positive mycotoxin control-fed pigs (ADG = 0.91 lb) and were statistically equal to one another. Based on BW and ADG results, Quantic Pulse successfully mitigated the 4 ppm DON and 0.5 ppm ZEN challenge.

**TABLE 2: Overall Pig Performance**

Treatments	Day 0-21 Performance Results	
	ADG (lb)	ADFI (lb)
1) Negative Control	1.00 <sup>a</sup>	1.44 <sup>c</sup>
2) Mycotoxin Control*	0.91 <sup>b</sup>	1.20 <sup>e</sup>
3) 0.50% Quantic Pulse*	0.98 <sup>a</sup>	1.36 <sup>d</sup>

\*Final supplemental dietary mycotoxins were 4 ppm DON and 0.5 ppm ZEN.  
<sup>a</sup><sup>b</sup>Means in columns with different superscripts are significantly different ( $P < 0.05$ ).  
<sup>c</sup><sup>d</sup><sup>e</sup>Means in columns with different superscripts are significantly different ( $P < 0.0001$ ).  
 Phibro contract research report, Swine Services Unlimited, Inc., 2019.

