

## BiOWiSH® MultiBio 3PS

**With BiOWiSH® MultiBio 3PS, piglets grew nearly 10% faster than the control group, and their Feed:Gain ratio improved nearly 6%.**

The University of Illinois at Urbana-Champaign conducted a study to determine the effect of BiOWiSH® MultiBio 3PS on weaning piglet growth performance when added to a balanced mash feed.

With BiOWiSH® MultiBio 3PS, piglets showed improved Average Daily Gain (ADG) and greater efficiency in converting feed to weight gain, as shown by the Feed:Gain ratio.

**Growth performance of weaning pigs fed BiOWiSH® in a 3-phase feeding program**

Parameter	Control	BiOWiSH® 3PS	SEM	P-Value
<b>Initial Body Weight, kg</b>	7.17	7.20	0.39	0.998
<b>Ending Body Weight, kg</b>	17.49	18.53	0.65	0.494
<b>ADG, kg</b>	0.369	0.405	0.013	0.129
<b>ADFI, kg</b>	0.719	0.746	0.025	0.639
<b>F:G*</b>	1.949	1.835	0.016	0.398

ADG = Average daily gain

ADFI = Average daily feed intake

All diets met or exceeded nutrient requirements for each age of pig (NRC, 2012).

BiOWiSH® MultiBio 3PS was added to the control diet at an equivalent dosage rate of 125 grams per metric tonne of feed.

\*Corrected for mortalities.

The mortality adjusted Feed:Gain ratio for the BiOWiSH® MultiBio 3PS treatment showed a 5.85% improvement versus the control.

100 to 200 grams of BiOWiSH® MultiBio 3PS per ton of feed was found to be the best management practice general recommendation. Product dosage rates may vary by species and management practices.

### BiOWiSH® MultiBio 3PS



- Highly efficient and fast acting
- Effective for all animal types
- Cost-effective and its performance for the end-user yields a leading return on investment

#### Available Sizes

- 100g/3.5oz
- 1kg/2.2lbs
- 5kg/11lbs
- 10kg/22lbs

## What is BiOWiSH® MultiBio 3PS?

BiOWiSH® MultiBio 3PS is a direct fed microbial (DFM) for swine operations.

BiOWiSH® MultiBio 3PS can be added to animal mash feeds, compound feeds, and animal drinking water.

BiOWiSH® MultiBio 3PS is a recommended feed additive for all growth stages. For optimum results commence feeding to weaning pigs. Maintain recommended concentration by adding more BiOWiSH® MultiBio 3PS with each animal feed addition.

## Study Background

BiOWiSH Technologies partnered with Dr. Ryan Dilger, Assistant Professor in the Department of Animal Sciences, and Dr. James Pettigrew, Professor Emeritus in the Department of Animal Sciences, at the University of Illinois at Urbana-Champaign to demonstrate the benefits of BiOWiSH® MultiBio 3PS on piglet growth performance. Testing was done at the Imported Swine Research Laboratory (ISRL) swine farm in Champaign, Illinois. Prior studies using BiOWiSH® product showed early (15-21 days) improved Average Daily Gain (ADG) and improved Feed:Gain (F:G).

## Study Implementation

This study used 2 treatment groups: Control and piglets fed BiOWiSH® MultiBio 3PS equivalent dosage rate of 125 grams per metric tonne of feed, with 12 replicate pens per treatment. The groups were set up as follows:

Treatment Group	Feed Type	BiOWiSH® MultiBio 3PS (Equivalent g/mT of Feed)	Replicate Pens	Pigs Per Pen	Total
<b>Control<sup>1</sup></b>	Mash	0	12	4	48
<b>Control + BiOWiSH® Multibio 3PS</b>	Mash	125	12	4	48

<sup>1</sup>Nutritionally adequate diet containing corn, soybean meal, dried whey, plasma, and fish meal; (NRC 2012)

Based on ancestry and body weight, weanling piglets (split sex) with equal number of barrows and gilts per pen were obtained from ISRL at weaning (18–21 days), assigned to experimental treatment groups, and placed in nursery pens (solid galvanized steel on 3 sides with slotted pen front).

Lighting, temperature, and ventilation conditions were monitored by farm management. Initial body weight (BW) averaged 7.17 and 7.20 kg, respectively, for both groups.

Experimental animals were housed for the duration of the study in a nursery room at Illinois' ISRL and had access to water and dietary treatments at all times. Weanling piglets were fed a 3-phase diet with week 1 as phase 1; week 2 as phase 2; and weeks 3 and 4 as phase 3. The feeding program followed the standard set of 3 diets fed at the Imported Swine Research Laboratory swine farm at the University of Illinois at Urbana-Champaign.



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