

BiOWiSH® MultiBio 3P

Broiler Chickens Virginia Diversified Research Corp. (2015)

BiOWiSH® MultiBio 3P improves body weight gain and nutrient utilization for broilers on corn-based diets

Background

BiOWiSH Technologies has established collaborations with universities and independent research firms to investigate the benefits of BiOWiSH® in a wide range of commercial poultry production settings.

These research studies highlight superior performance benefits with the addition of BiOWiSH® direct-fed microbials (DFMs) to various diet compositions, feed types, and application methods such as through drinking water systems. Moreover, our body of research, including a collection of commercial field trials, illustrates the benefits of improved litter quality, reduced ammonia levels, and reduced odor complaints as additional outcomes of BiOWiSH® supplementation in poultry production. All studies can be found online at biowishtech.com.

In the current study, the effects of BiOWiSH® MultiBio 3P were studied when added to corn based feed and given to broiler chickens. This is the first study in this series of studies done on corn based diets to show consistency of results. BiOWiSH Technologies partnered with Michael D. Sims, president of Virginia Diversified Research Corp. (VDRC), to demonstrate the benefits of adding BiOWiSH® MultiBio 3P to broiler diets. The study was conducted over the span of 42 days in Harrisonburg, Virginia.

Objective

The objectives of this study were to determine the efficacy of BiOWiSH® MultiBio 3P in a commercial setting, and to assess the benefits of BiOWiSH® MultiBio 3P on broiler weight gain and nutrient utilization, as measured by feed conversion ratio (FCR) delivered to a corn-based pelleted compound feed.

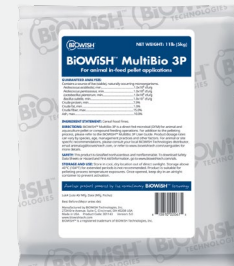
Solution

BiOWiSH® MultiBio 3P is a DFM that is recommended for use at all growth stages in poultry operations. It can be added to pelleted, compound and extruded feeds.

This study followed BiOWiSH recommended best management practices by beginning BiOWiSH® MultiBio 3P supplementation at the day of hatch and maintained recommended concentration of BiOWiSH® with each feed addition. Dosage was 500 grams per ton of feed, in accordance with the best management practices.

Please see the BiOWiSH® MultiBio 3P user guides for more information on recommended dosages, as they may vary by species and management practice.

BiOWiSH® MultiBio 3P



All-natural direct-fed microbial (DFM) for pelleted and extruded feed manufacturing

Available Sizes

- 5kg/11lbs
- 10kg/22lbs
- 25kg/55lbs

Implementation program

Straight-run broiler chicks (Cobb 500) were obtained from a commercial hatchery on the day of hatch. All chicks were spray vaccinated with Coccivac®-B, and only healthy chicks were used in the study. The chicks were assigned to experimental treatment groups based on placement weight. Group arrangement is shown in Table 1.

Treatment group	Feed type	Product dose (kg/ton)	Replicate pens	Birds per pen	Total
Control	pellet	-	10	27	270
BiOWiSH® MultiBio 3P	pellet	0.5	10	27	270
Total animals per trial					540

Table 1: Arrangement of animals into treatment groups

Birds were placed in four foot by five foot floor pens containing tube feeders, continuous water lines, and new wood shavings. Used litter was introduced in equal amounts on day four as a mild environmental challenge. Lighting, temperature, and ventilation conditions were monitored daily.

All animals were housed for the duration of the study in a metal and cinder block structure with a clay floor and provided access to water and the treatment diets at all times.

Birds were fed a corn-based diet representative of the commercial US broiler industry, prepared in accordance with standard industry practices. The treatment group was fed this diet with BiOWiSH® MultiBio 3P added. All feeds were pelleted at a temperature between 85 and 90°C, with steam exposure for between three and seven seconds.

Results & Discussion

BiOWiSH® MultiBio 3P was effective as a DFM treatment. It yielded significant improvement in body weight gain and feed conversion ratio (FCR) over the control diet, as shown in Table 2.

The addition of BiOWiSH® MultiBio 3P resulted in a weight gain increase of 5.44% and an FCR improvement of 3.2% when compared with the control pellet diet.

Treatment group	Day 42 body weight (kg)	Day 42 FCR* (weight/weight)
Control	1.999	1.866
BiOWiSH® MultiBio 3P	2.108	1.807

Table 2: Body Weight and FCR at the End of the Trial
Feed Conversion Ratio (FCR) is weight adjusted.
Body weight is the average weight per bird.

BiOWiSH® MultiBio 3P represents an opportunity for food producers to increase poultry weight gain and FCR. The 3.2% improvement in FCR for BiOWiSH® MultiBio 3P, as fed through the pelleted feed and in addition to the control diet, indicates better nutrient utilization.

As seen in this study, BiOWiSH® MultiBio 3P is an effective DFM that delivers powerful results for broiler chickens fed pelleted corn based feed. When examined as part of a larger body of research, the results are consistently positive in different years, environments, diets, and application methods.



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