NUTRITION NOTES
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# SUPPLEMENTAL NUTRIVANTAGE® HYDRA: PERFORMANCE AND ECONOMICS IN GROW-FINISH PIGS

*Michael Edmonds, Ph.D., Vice President, Swine and Poultry Nutrition*

NutriVantage Hydra is a highly refined, flavored, soluble nutritional supplement that may help support the immune system of pigs, specifically during times of stress. NutriVantage Hydra contains a fresh water humic acid (a high-density source of medium-high carbon) that may help the immune system. NutriVantage Hydra also includes Vitamin C, which is a key antioxidant that can help performance in stressed pigs. Furthermore, this formulation contains a source of vitamin D (25(OH)D3) which has enhanced bioavailability and absorption properties compared to feeding vitamin D3 alone. In addition, vitamin E is also added to provide another key antioxidant that protects cell membranes and tissues, such as the liver, from oxidative damage.

In the following trial, we had four groups of pigs on test at the Kent Product Development Center. Group 1 received plain water for the entire test. Group 2 had NutriVantage Hydra mixed at 2 ounces/2.5 gallons of stock solution and run through a proportioner set at 1:128 for 2 days each week. With Group 3, the NutriVantage Hydra was mixed at 2 ounces/5 gallons of stock solution and run through a proportioner set at 1:128 for 4 days a week while Group 3 had the Hydra mixed at 2 ounces/9 gallons of stock solution and run through a proportioner set at 1:128 for the entire test period of 113 days. All the pigs were fed a five-phase NexGen program with 200 lb/ton of Distillers Dried Grains with Solubles.

The Revenue/Pig data shown below involved many calculations which included selling market hogs (U.S. #1) at the prices below, selling lighter weight pigs (170 to 190 lbs at $6/cwt less than the prices shown below for U.S. #1), selling "Roaster pigs" (averaged about 60 to 80 lb each) at a loss of $55 each and using a loss of $60 each for the dead pigs (most losses involved pigs that were under 100 lb each). In addition, the cost (using the retail price of $94 for a 2.5 lb pail of NutriVantage Hydra) of the supplemental Hydra was $0.62, $0.59 and $0.48/pig for Groups 2-4, respectively which were included in the calculations. Thus, the calculations shown below represent emptying an entire barn at 113 days.

**TABLE 1 – EFFECT OF NUTRIVANTAGE HYDRA ON PERFORMANCE IN GROW-FINISH PIGS***

| Group | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| NutriVantage Hydra, Days/Week | 0 | 2 | 4 | 7 |
| Number of Pigs** | 214 | 214 | 214 | 214 |
| Dead Pigs, % | 8.21[a] | 4.75[ab] | 5.42[ab] | 1.47[b] |
| **Days 0-113** | | | | |
| ADG, lb | 1.760 | 1.741 | 1.734 | 1.739 |
| F/G | 2.826 | 2.791 | 2.796 | 2.777 |
| Cost/lb Gain, ¢ | 24.15 | 23.74 | 24.06 | 23.79 |
| Revenue/Pig @ $50/cwt live | 30.61 | 38.08 | 35.92 | 41.17 |
| Revenue/Pig @ $60/cwt live | 46.58 | 55.26 | 52.73 | 58.76 |
| Revenue/Pig @ $70/cwt live | 62.56 | 72.43 | 69.54 | 76.34 |

KNG 4GF-72 & 73

*Means with different superscripts in a row are significantly different (P ≤ .05)

**Initial weight = 46 lb

There were no statistical differences among the groups for gain and feed efficiency. However, the slight improvements in feed efficiency from all three Hydra groups resulted in numerically lower feed cost of gains compared to pigs on plain water throughout the trial period. In regard to death loss, we observed reductions in death losses of 42, 34 and 82% from using the supplemental Hydra for 2, 4 and 7 days, respectively, compared to those pigs in Group 1 which had plain water. These death losses were an important part of the economic calculations since 18 pigs died in Group 1 (water) compared to three pigs lost (statistically significant differences) in Group 4 (Hydra used throughout the trial at the lower dilution rate). In comparing the Revenue/Pig we observed an advantage (@ $60/cwt live price) of $8.68, $6.15 and $12.18, respectively for pigs on supplemental Hydra for 2, 4 and 7 days each week compared to those on plain water.

## BOTTOM LINE

Efficiently delivering supplemental NutriVantage Hydra to growing-finishing pigs by way of water proportioners, has the potential for positive performance and economic results.