



NUTRITION NOTES

Innovation + Research from Kent Nutrition Group

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EFFECT OF SUPPLEMENTAL NUTRIVANTAGE® HYDRA ON PERFORMANCE AND ECONOMICS IN WEANLING PIGS

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NutriVantage Hydra is a highly refined, flavored, soluble nutritional supplement that may help support the immune system of pigs, especially 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. Vitamin C is also included as a key antioxidant that can help performance in stressed pigs. In addition, it contains a source of vitamin D (25(OH)D3) that has greater bioavailability and absorption than just feeding vitamin D3. Furthermore, supplemental vitamin E is also included, which provides a major antioxidant that protects cell membranes and tissues, such as the liver, from oxidative damage.

In the trial shown below (Table 1) with weanling pigs (20 days old), we used NutriVantage Hydra at 2 ounces in 1 gallon of water to make a stock solution which ran through a medicator or proportioner set at 1:128. This supplement was used for the first 7 days on test for Groups 2 and 3 when the pigs arrived at the Kent Nutrition Group (KNG) Product Development Center. Group 3, received NutriVantage Hydra for an additional 7 days, but at half the rate (1 ounce in 1 gallon of stock solution). The pigs in Group 1 received plain water throughout the trial. When the NutriVantage groups completed their supplementation, the pigs then received plain water as well. The pigs were fed Kent grind and mix diets in 3 stages (Days 0-7, 7-14 and 14-35).

TABLE 1: EFFECT OF NUTRIVANTAGE® HYDRA SUPPLEMENT ON PERFORMANCE AND ECONOMICS IN WEANLING PIGS¹

	Group 1	Group 2	Group 3
NutriVantage Hydra (1st 7 days) at 2 oz/gal stock		√	√
NutriVantage Hydra (Days 7-14) at 1 oz/gal stock			√
Number of Pens	14	14	14
Initial Weight, lb	13.87	13.88	13.63
Days 0-35			
ADG, lb	.704 ^b	.758 ^a	.722 ^{ab}
F/G	1.710	1.678	1.728
Cost/lb Gain, ¢	24.12	23.38	24.08
Net Return, \$/Pig@ 60¢/Lb Live Wt	9.18	9.76	9.17
Cost of NutriVantage Hydra/pig ² , \$	0	.033	.065
Adjusted Net Return/pig, \$	9.18	9.73	9.10
Death Loss, %	8.93 ^a	4.86 ^{ab}	3.37 ^b

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¹Means with different superscripts in a row are significantly (blue) different ($P \leq .05$)

²\$94/2.5 lb pail = \$4.70/2 oz serving of NutriVantage Hydra; \$4.70/128 gallons = \$0.0367 per gallon of water consumed during Days 0-7 for Groups 2 and 3. With Group 3, the cost would be \$0.01835 per gallon of water consumed since the inclusion level was 1 oz per serving from Days 7-14.

Pigs that had NutriVantage Hydra in their water for either 7 (Group 2) or 14 (Group 3) days post-weaning had gain responses of 7.6% and 2.6% respectively, compared to those on water alone. Moreover, the adjusted net return value was \$0.55/pig greater for pigs on NutriVantage Hydra for 7 days compared to Group 1 without NutriVantage Hydra. This adjusted net return reflects the value of gain (@ \$0.60/lb live weight) minus the feed cost for the gain minus the just over 3 cents of cost per pig for the NutriVantage Hydra. In regard to death loss, we observed a 45% and 62% reduction in death loss for pigs in Group 2 and 3, respectively, compared to those in Group 1. Table 2 illustrates the economic losses (does not account for any feed expenses) that occur from these differences in death losses when applied to a commercial nursery unit.

TABLE 2. IMPACT OF LOSS IN A 1200-HEAD NURSERY UNIT

	Group 1	Group 2	Group 3
NutriVantage Hydra Supplement (Days Used ¹)	None	7	14
Death Loss, %	8.93	4.86	3.37
Number of Dead	107	58	40
Economic Loss at \$42/SEW Pig	\$4,494	\$2,436	\$1,680

¹see Table 1 for usage levels

BOTTOM LINE

Using a natural and efficient delivery system by means of KNG's NutriVantage Hydra supplement via water proportioners, has potential for positive performance and economic results.

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