



NEWS TO USE

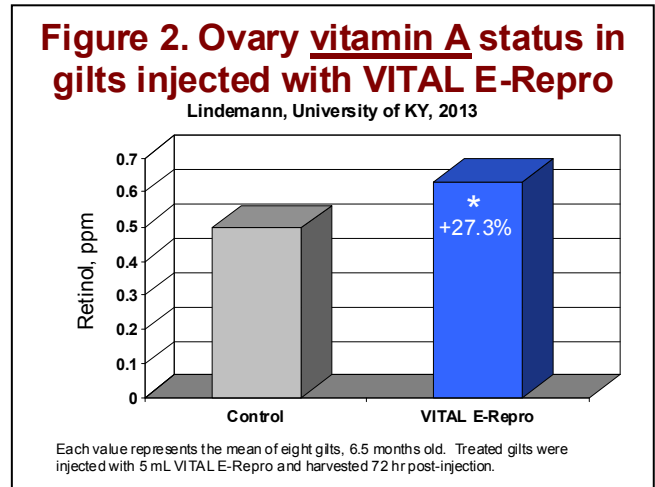
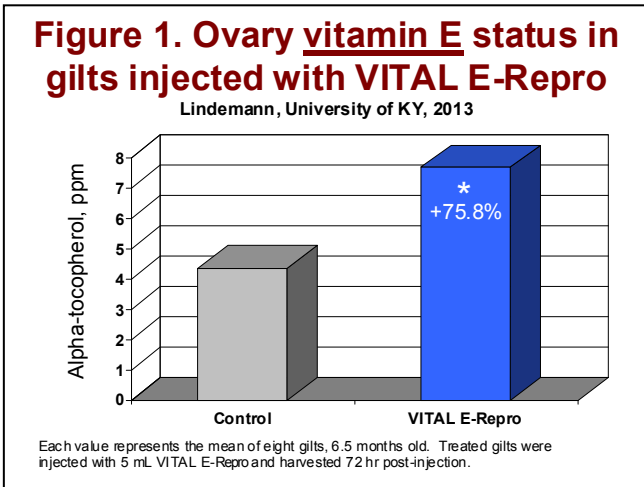
Dramatic Increase in Vitamins E and A in Gilt Ovaries After Injecting with VITAL E®-Repro

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Fat-soluble vitamins are critically important for reproducing swine and are necessary for optimum production. Vitamin E and vitamin A have been shown to be important antioxidant nutrients in ovaries partly due to the high content of polyunsaturated fatty acids in ovaries compared to other tissues and serum. Deficiencies have been shown to reduce gilt and sow productivity (Agarwal et. al. 2012; Jeffery et. al. 1980). Previous research has shown that sows injected pre-farrowing with **VITAL E-Repro** have transferred higher levels of vitamins E and D to their offspring both in utero and through colostrum and milk (Lindemann et. al. 2013). Sows injected with vitamin A palmitate pre-breeding had greater number of pigs born live, especially in first and second parity sows (Lindemann, et al. 2008).

Recently, Lindemann (unpublished) injected gilts with 5 mL **VITAL E-Repro** to determine the effects of injection on serum levels of vitamins E, A and D, and ovary levels of vitamin E and vitamin A seventy-two hours post-injection. As expected, **serum levels of vitamin A were increased by 23%, serum vitamin D status increased by 302% and vitamin E status was increased by 47%** (data not shown). Most notably, vitamin E and vitamin A levels in ovaries were dramatically increased. Vitamin E levels were increased by **75.8%** (Figure 1) and vitamin A levels were increased by **27.3%** (Figure 2).

These and other data have shown that gilts and sows injected pre-breeding and pre-farrowing had significantly higher levels of these critically important vitamins in ovaries at breeding and in colostrum at farrowing resulting in improved production and higher vitamin levels in pigs born to fat-soluble vitamin injected sows.



Recommended VITAL E-Repro Uses for Gilts and Sows:

Weaning/Pre-breeding- Sows: Inject **5 mL VITAL E-Repro** at weaning, and Gilts one week pre-breeding.

Pre-Farrowing- Sows and gilts: Inject **5 mL VITAL E-Repro** one to two weeks-pre-farrowing.

References

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Jeffery. K. Y. et al. 1980. The porcine ovarian follicle. VI. Comparison of fatty acid composition of serum and follicular fluid at different developmental stages. Biol. of Reproduction. 22:141-147.

Lindemann, M. et al. 2008. A regional evaluation of injections of high levels of vitamin A on reproductive performance of sows. J. Anim. Sci. 86:333-8.

Lindemann, M. et al. 2013. Oral and injectable fat-soluble vitamin programs for sows, newborn and weaned pigs. Proceedings 2013 Am. Assoc. Swine Veterinarians.