

THE ALPACA RESEARCH FOUNDATION being committed to funding research that will aid in better care and understanding of camelids worldwide, has funded a study that has led to this discovery as well and looks forward to further research in camelid reproduction.

## NEW FINDINGS IN ALPACA BREEDING BIOLOGY

We all know that alpacas and llamas are "induced ovulators", right? Think again! There may be more at work than meets the eye (or ear) of our fibered friends than the physical stimulation that occurs during the act of breeding.

Recent studies conducted at the Western College of Veterinary Medicine, University of Saskatchewan, Canada by Gregg P. Adams, DVM, PhD, are indicating that an ovulation-inducing factor (OIF) found in seminal plasma fluid may actually be responsible for ovulation following copulation.

In Short...

Bactrian camels are the only species known to have a documented factor in seminal fluid that is responsible for ovulation. That factor is known as ovulation-inducing factor or OIF. Extrapolating from that knowledge, Dr. Adams set up a study involving three experiments to determine whether or not llamas and alpacas also produced such a factor.

The study...

Three experiments were conducted to better determine whether or not other camelids, in this case alpacas and llamas, also produced OIF in seminal fluid. Female llamas and alpacas were given either an intramuscular injection of seminal plasma fluid, an intrauterine infusion of seminal plasma fluid (containing NO sperm cells), GnRH (Gonadotropin-releasing hormone), or a saline solution. They were then examined to determine whether or not ovulation had occurred.

Findings...

100% of those females administered intramuscular seminal plasma fluid were found to have ovulated while only 83% who were given GnRH did so. 0% of the control group ovulated. Other factors associated with ovulation were also measured including plasma hormone levels and corpus luteum (CL) growth. The results clearly indicate that an ovulation-inducing factor exists in llamas and alpacas and plays a very large role in establishing pregnancy.

Implications

Clearly, with this new found knowledge, a much wider range of study has been opened! Infertility, fertility, breeding practices, and future therapeutic drug development are but a few of the areas that may soon impact all breeders and their ability to more successfully manage their breeding herds.