



## **PULSE SWINE NEEDLEFREE TECHNOLOGY NOW AVAILABLE IN MULTIPLE CONFIGURATIONS**

Research of New Pulse 50™ Presented at AASV

Lenexa, KS July 1, 2008 – Pulse NeedleFree Systems, Inc. announces that swine producers may now use Pulse injection systems to take their operations completely needlefree – to inject everything from day-old baby pigs to sows and finishing hogs. With injection doses as low as 0.1 ml and as high as 5 ml, the Pulse 50™ Micro Dose Injection System, Pulse 250™ Injection System and Pulse 500™ Injection System can cover the complete range of injectable products commonly used by swine producers.

The Pulse swine product line was recently enhanced with the market launch of the Pulse 50 Micro Dose Injection System, designed for administration of low-dose products where efficiency and dose accuracy are vital. “We worked with swine producers that sought to achieve the highest level of biosecurity and quality assurance by completely removing needles from their operations,” said Dr. David Cook, Pulse’s Technical Services Director. “The last step was development of a system that could be fast and accurate at low doses like 0.1 ml and 0.2 ml, where producers are very concerned about injecting too little or too much of a valuable product.”

The benefits of the Pulse 50 were analyzed in a dose accuracy research study presented at the 2008 American Association of Swine Veterinarians Annual Meeting in San Diego, California. The study, led by C. Scanlon Daniels, DVM of Circle H Animal Health (Dalhart, Texas) and University of Minnesota veterinary student Carissa Schloesser, focused on the dose accuracy profile of the Pulse 50 with several swine antibiotics at dose ranges from 0.1 ml to 0.5 ml. The study validated the injection system’s dose accuracy profile and concluded that swine producers can feel confident in the relative dose accuracy and precision of the device. Ms. Schloesser won the first place AASV award for Best Student Presenter and received a scholarship from the AASV Foundation. The study was sponsored by Pfizer Animal Health.

Pulse has performed research studies on many major swine vaccines and pharmaceuticals to confirm the efficacy of these products through needlefree delivery. Published research studies have shown that diseases such as PRRS can be spread from one animal to the next through needle re-use. A similar research study on cattle showed that the Pulse did not transfer disease from animal to animal, while a conventional needle resulted in a high incidence of disease transfer. Other advantages of the Pulse technology include meat safety, animal productivity, immune response through transdermal delivery and improved worker safety.

About Pulse NeedleFree Systems: Pulse NeedleFree Systems, Inc. is the leading developer of needle-free injection systems for the animal health industry. The primary applications for Pulse's products are vaccines, antibiotics and other injectables that are used to treat animals in large livestock operations. Pulse's corporate headquarters are in Lenexa, Kansas, with Pulse field service technicians located throughout the United States. For more information about Pulse, visit <http://www.pulse-nfs.com>.