New Ovine Laparoscopic Equipment At New Bolton Center

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KENNETT SQUARE (Chester Co.) — The Georgia and Philip Hofmann Center for Reproductive Studies at New Bolton Center has acquired new, state-of-the-art Ovine Laparoscopy equipment. This allows the Center to offer laparoscopic artificial insemination and embryo transfer to small ruminant patients.

Laparoscopic artificial insemination in sheep and goats currently is the preferred method for breeding these small ruminants with frozen-thawed semen.

Using the laparoscope, semen is deposited directly into the uterine horn, thus placing the sperm in close proximity to the site of fertilization. This increases the chances for pregnancy, particularly when dealing with small numbers of sperm (as is the case with frozen semen).

Before an animal can undergo this procedure, her estrous cycle must be synchronized with hormones. This allows ovulation to be very exactly timed. At around the time of ovulation, the procedure is performed.

The ewe may or may not be sedated and a local

anesthetic is injected at the surgical site.

The ewe then is suspended by her hind legs in a specially-designed cradle. This position helps to insure that the rumen and intestines are not in the way of the surgery.

A small hole (usually less than a centimeter) is made through the animal's body wall and into her abdomen. The laparoscope is inserted through the hole. The uterus and ovaries generally are easy to see through the laparoscope.

Once the reproductive tract has been identified, a second, similar hole is made into the abdomen and a small insemination instrument containing the semen is passed through the hole.

The surgeon then can watch through the laparoscope and guide the insemination instrument to the uterus where a small needle at the end of the insemination instrument is used to puncture into the uterus. Semen then is injected directly into the uterine lumen.

The instruments are withdrawn and the small holes are closed with one suture each. In the hands of an experienced surgeon, the entire procedure can

