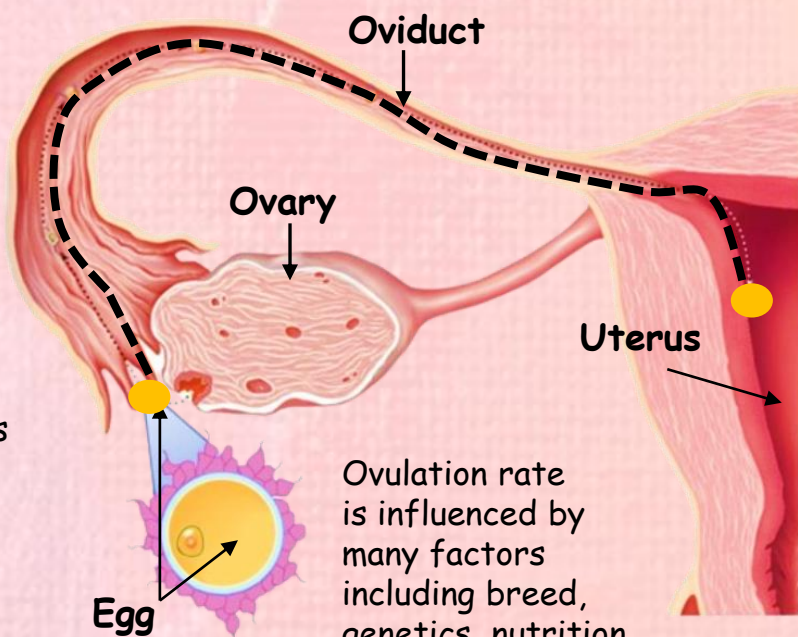


OVULATION = EGG RELEASE

One of the main factors affecting the profitability of sheep and goat production is prolificacy or litter size. Litter size (or number of offspring born) is determined primarily by ovulation rate, as monozygotic (identical) twins aren't very common in sheep/goats. Ovulation is the release of eggs (or an egg) from the female's ovaries. It usually occurs at the end of estrus.

The eggs (oocytes) travel through the oviducts and are fertilized if sperm are present. After fertilization, the fertilized eggs (zygotes) begin to divide and develop into embryos. The embryos travel to the uterus where they implant and begin to grow into fetuses. If the eggs are not fertilized the female will continue her cycle and eventually return to estrus.



Ovulation rate is influenced by many factors including breed, genetics, nutrition, body condition, age, and season.

Most ewes and does ovulate 1 to 3 eggs per cycle. Some breeds are more likely to release one egg whereas prolific breeds may ovulate 3 to 5 eggs per cycle. Ovulation rate increases naturally with age, with mature ewes/does usually ovulating more eggs than younger females. Ovulation rates are usually highest during the peak of the natural breeding season, i.e., in the fall when daylight hours are decreasing.



Nutrition has a large effect on ovulation. Flushing is a common strategy to improve ovulation rates in ewes/does. It is when extra feed is provided to females prior to and during the early part of the breeding season. Females in better body condition (or actively gaining weight) usually ovulate more eggs. Superovulation involves using hormones like FSH to induce the ovaries to release more eggs. It is done primarily with embryo transfer (ET) and other assisted reproductive technologies.