



## MATING BEHAVIOUR

The male pursues the receptive female, attempting to mount her until she sits in 'cush' position. A male with good libido may chase a female for up to ten minutes. Once the female sits down, the male positions himself immediately behind her, manoeuvres his penis through her vulva into the vagina and cervix. With rhythmic thrusting movements semen is then deposited into the uterus of the female. If the male is properly positioned his back is characteristically arched with his pelvis close to the pelvis of the female. During copulation the male makes a characteristic guttural sound called 'orgling'. Copulation may continue for 5-55 minutes with an average time of 15-20 minutes. During mating other receptive females present may sit down beside the mating pair. Once ovulation has occurred, females are non-receptive and will actively reject the male, i.e. they spit, refuse to sit down and try to run away. Alpacas are non-seasonal breeders and will demonstrate year round sexual activity.

## PREGNANCY

Although left and right ovaries are equally active, most pregnancies implant in the left uterine horn. Thus, some embryos must migrate from the right to the left uterine horn. The placenta, which attaches to the developing foetus and the uterus during pregnancy, is similar to that of the mare and does not have raised attachment areas (cotyledons) like the domestic ruminant placenta.

Conception rates of 75-80% with a single mating are not uncommon.

The gestation is generally about 342 days but can range from 320-380 days.

## Pregnancy diagnosis methods

No pregnancy diagnosis method is 100% reliable. Because early embryonic death occurs more frequently in alpacas than in other domestic species, all pregnancies should be reconfirmed 45 days post-mating and, if possible, by two methods.

### Ultrasonography

Flank ultrasonography where a transabdominal probe is applied to the body surface near the udder provides a visual sighting of the foetus. Depending on the type of machine used, diagnosis can be made <30 days. The usual method of routine pregnancy diagnosis is to confirm by ultrasound once gestation is >60 days.

### Behaviour

This initial 'spitting off' (rejection of the advances of a male by the female – they spit off, refuse to sit down, attempt to run away) is a response triggered by an increase in progesterone levels associated with ovulation and is not a confirmation of pregnancy. However, rejection of the male is a good preliminary indication of pregnancy or continued pregnancy, once diagnosis is made by ultrasound. As embryonic loss can occur, exposure to a male at regular intervals (e.g. six weekly) throughout the pregnancy is recommended.

### Appearance

Some alpacas do show changes in body shape but mostly external signs are not apparent even in advanced pregnancy.

## FURTHER READING

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*Much of this material has been adapted from An introduction to the unique reproductive physiology and breeding activity of SACs by Dr. Deidre Bourke: Proceedings of the International Alpaca Conference, held in Fremantle, WA 1998, with significant contributions from Dr. Ewen McMillan, Dr. George Jackson, and Carolyn Jinks.*

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Disclaimer: The management practices detailed in this overview do not constitute veterinary advice. Any alpaca appearing to have an adverse condition should be assessed by a veterinarian.