

# Geldings aren't always good guys

## Why you should keep male and female alpacas separate

by Jill McElderry-Maxwell, April, 2019

Every alpaca owner will eventually be asked if male and female alpacas can be kept together. It's my opinion that your answer should always be "no," even if the male is gelded - and here are the reasons why.

Let's start with reproductive anatomy. Many new owners will counter that geldings and wethers are kept with females in other livestock species like horses, sheep, and goats. What needs to be understood, however, is that llamas and alpacas breed like no other traditional livestock.

Alpacas and llamas have a hard, cartilaginous tip to their penis, a penis that actually penetrates into the uterus doing coitus. During intercourse, the corkscrewing penis rakes the lining of the tract, opening it to infection. If a female alpaca is pregnant, penile penetration into the uterus can cause her to abort. Photographs of the female reproductive tract taken after a breeding show that it looks like raw hamburger - females often bleed even after a single, planned breeding. In other species, the penis is shorter, softer, and does not damage the female.

Add to this that intromission can easily exceed thirty minutes without owner intervention. In other small ruminants, if you blink, you'll miss the breeding - which also happens while the animals are standing. There's less chance of dirt and other materials being carried into the reproductive tract. Since alpacas breed while cushed - and males can take substantial time to find the appropriate opening - breedings on dirt or less savory substrates can introduce a significant amount of debris into the female. Now imagine a gelding sneaking breedings night after night. The female doesn't refuse because she's not pregnant and she's sleepy - and so her reproductive tract never has a chance to heal. Overbreeding is the number one cause of infertility in alpacas and llamas.

But my gelding never breeds my girls, some owners will exclaim - I would see it! Except alpacas really do prefer to breed under cover of darkness. One owner's eyes were opened dramatically the summer her home was right next to the alpaca paddock; my thanks to Jennifer Freundlich for allowing me to reprint her words:

"Here is a cautionary tale from my lived experience: Several years ago, I lived in a camper on the farm where I worked, close enough to the alpaca pasture for 'pacas to stick their heads in my window. It was a huge eye-opener (literally): geldings that we believed were living peaceably with females WERE in fact attempting to breed them relentlessly in the wee hours of the night. I observed these animals pretty much all day, every

day and would have had NO idea this was going on if I hadn't slept beside the pasture. One nearly killed his half sister. We separated them, of course, and she recovered with supportive care. I will never house gelded alpacas with females since, for any length of time or reason. It's simply not worth the risk to the girls!"

Sometimes potential owners will counter that even intact males and females run together in "the wild" in South America - why can't they do the same here? For one thing, llamas and alpacas are receptive and fertile all year around: there is no rut, estrus, or true breeding season like in some other livestock. Mature females have a follicular cycle that produces ripe eggs on a regular basis, and this cycle is generally only interrupted by pregnancy. This is why owners can have spring cria, fall cria, or accidental cria at any time. In their native altiplano, alpacas are forced into a single breeding season not by their anatomy, but by the available forage. There is only enough food to support pregnancy and lactation in the spring - severe nutritional limitations typically prevent out of season cria.

Genetic and morphological studies confirm that alpacas are essentially domesticated vicuña, whose behavior is well studied. Successful vicuña males maintain harems of four to six females, which they defend vigorously. Once his females are pregnant, a macho's energies are devoted to this energetically expensive defense against rival males and predators - he doesn't have the time or the energy to pursue females that spit him off. Females are not overbred simply because the males can't afford to. Inbreeding is avoided by the dams and harem macho combining to drive young females out of the herd once they reach reproductive maturity. Mature females generally remain with the harem macho in a stable group, unless a rival ousts the breeding male. The unsuccessful vicuña males live together in bachelor herds, which is in part why we can keep groups of intact males together with minimal fighting - they are evolutionarily programmed for it.

But of course, there are no wild alpacas, and so we have human intervention making out of season breeding even more difficult in South America. Most farms or groups of owners keep the males and females separate by using human shepherds, who only bring breeding pairs together for limited times. Hand breeding is common, and pasture breeding mimics male harems, with females being introduced into breeding groups controlled by a specific macho. Supplemental feed is not typically offered, so the females face the same nutritional restraints as their wild ancestors. There is evidence of significant human intervention in alpaca breeding dating back 4000 before present in South America.

Here in the US, our alpacas are spoiled. Males and females both are kept on a much higher nutritional plane, meaning that pregnancies can be maintained at any time of year (it's also why so many more alpacas are producing twins - they have the energy and nutrition to do so). An intact male kept in with females will be anxious and able to rebreed them if a pregnancy slips. Females can therefore end up with poorly timed cria. When alpacas are kept as pairs or in small groups, a breeding male's libido may

be strong enough that he will attempt to breed the female as she is birthing, killing the cria (just before birthing, pregnant females will smell similar to open females).

Likewise, strongly sexed males may try to breed very young females, even their own daughters, either impregnating, injuring, or killing them. Many owners assume that young males won't breed their mothers, or older males their daughters, but alpacas have no incest taboos. The youngest sire on record was only between seven and eight months old - male cria need to be safely weaned and separated from the female herd before their sex drive kicks in.

Surgical castration is the removal of the male's testicles, which only removes the ability to impregnate, but not the ability to penetrate. While many males will experience a significant drop in testosterone levels after gelding, breeding is also a learned behavior which does not require sex hormones to be present. Castration should not be performed before a male alpaca reaches 18 months of age (24 months in llamas) to avoid future skeletal problems. This means that on many farms, males will have been exposed to breeding behaviors long before they are gelded. Breeding remains a pleasurable experience for even gelded males. Many gelded males are happy to breed at any time, and since they can't impregnate a female, she will remain receptive and not spit the gelding off. This can lead to uterine infections, injury, and infertility.

In short, all alpaca and llama males may have the urge to breed, whether gelded or not. Given the unique sexual anatomy of the male camelid, and the unusual breeding behavior of the species, repeated, prolonged breedings can do significant damage to the female reproductive tract. Overbreeding is the most common cause of infertility in female camelids. There are no benefits to running male and female camelids together, and many, many potential drawbacks, including female injury, infection, and death.

## References

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