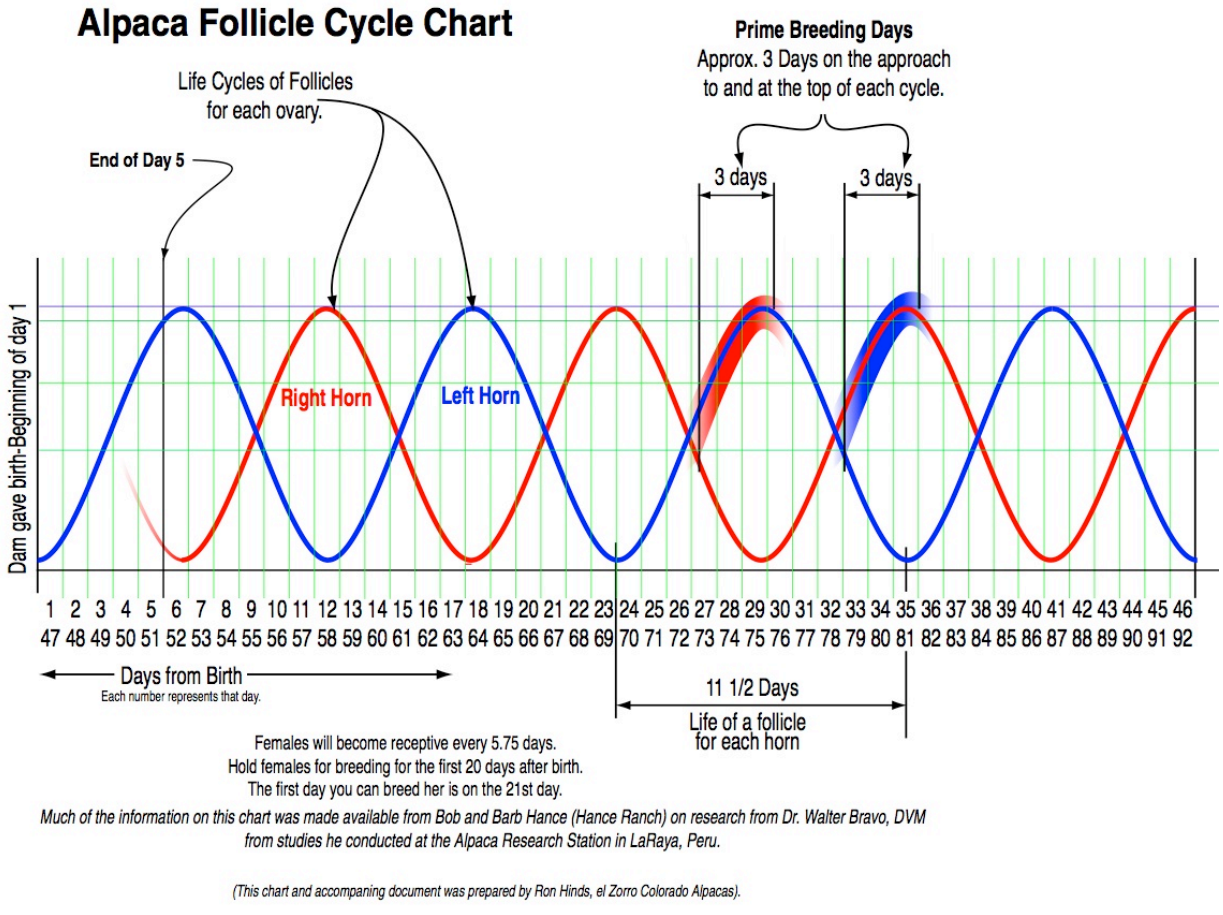
Breeding:

Terminology: Hand Breeding: One male, one female, breeding takes place, and the male is then separated this is the most common method at most farms. Pen breeding: One male, one female, leaving them together for a defined period of amount of time. Pasture breeding: One male, multiple females.

The simple act of breeding can have a major impact to an alpaca female uterus. Generally, it repairs itself after a period of time, 7-20 days. The uterus requires a certain amount of time to heal itself after a birth and regain a normal non-pregnant shape. This is the reason why many breeders choose to wait nearly three weeks before rebreeding. Studies have shown that this is common in open alpaca ranges of Peru. Repeatable breedings at short intervals or unnecessary breedings can do irreparable damage to a female. This action has the effect of shortening the breeding life of a female. The goal is to breed females, keeping the damage to her uterus minimal. To do this requires a good understanding of a female's cycle and her receptiveness to a male.

The Cycle: Each of the two ovaries of an alpaca produce follicles on a regular cycle that equals 11-1/2 days from beginning of growth to its demise. Each ovary cycle is complementary of the other. This cycle for each ovary is depicted on the accompanying chart using the sine waves as a method of showing the growth and disintegration of each follicle of each ovary. Since we have a 11-1/2 day cycle for each ovary, the combined breeding cycle of both horns is 5.75 days. So each 5.75 days the female will become produce a follicle. The prime breeding time is approximately 3 days on the approach to the top or at the top of each cycle for each ovary as indicated in red and blue. (see chart below).



This information (click here for pdf) is made available from Dr. Walter Bravo, DVM.

(Reference: The Reproductive Process of South American Camelids' by P. Walter Bravo (ISBN 0-9719073-0-7). The book is out of print, but copies may be found out there!)

Alpaca female receptiveness to a male will vary depending upon where she is in her specific cycle. She may run around a pen and spit but eventually sit down and be bred by the male regardless where she in her cycle, but unless she is bred in the period near the top of an ovary cycle, she will not get pregnant.

In a perfect world a female at the prime breeding time in her cycle will sit down immediately for a male, but the world is not perfect and most female alpacas can't read the manuals. Some females are not very receptive to a male's approach even when she is at her peak breeding time. These females are difficult to determine their cycle and may cause multiple breedings to get them pregnant. Using the following methods you can determine when your experienced female is receptive or going to be receptive without breeding. It can also be used in a limited manner on maidens as well, I will explain later.

Of course, there are other factors, that cause a female to be infertile. However, even in those medically challenged females this method will tell you sooner, with less damage to her uterus, if you have a problem.
Once the female has been bred the first time (as either a maiden or the first time after giving birth) her natural cycle is interrupted and the chart can no longer be used to accurately predict her ovulation cycle.

Jump to top of page

Breeding Schedules-Experienced Females:

If you can get a female to sit and be bred routinely every 5-6 days, you may never get her pregnant, regardless if she's a maiden or not. If you are unsure when your female will be receptive your first job is to determine where she is in her cycle. If she recently gave birth and you know the birth date grab a calendar and do a little calculation. Determine the number of days that have passed since her recent cria was born. Divide that number by 11.5. Example: Cria was born April 4 and it's now June 4. Where is she in her cycle? Let's see where she will be at the top of her closest cycle. April 5 to April 30 = 26 days; Note: Days start on the day *after* birth. Days are inclusive (of days between April 5 and 30th) so it's not 30-5, instead it's 30-5 +1. May = 31 + 4 in June = 61 days. 61 days =10.61 cycles of 5.75 days each. 11 full cycles would be 11 x 5.75 = 63.25 So on 61.00-63.25 = 2.25 days or June 6.25 so on June 7 she will be at her cycle peak. If your calculations are accurate she should sit down for the male immediately the afternoon of June 6, all day on June 7 and the morning on the June 8. This is a conservative estimate, your female may vary.

We have determined this cycle has a time limit on it's accuracy. It appears each female's cycle vary's a little bit from on female to another. The chart works well for about 3 sometimes 4 months but beyond that you will be able to use it to get close.

Maidens:

Not all maidens will behave the same when a male is present regardless where she is

at the peak in her cycle or not. In most females you can determine when she is receptive without breeding her. By putting her in with a male she may display many types of behavior. The behavior you're looking for is for her to immediately sit down for a male. This will tell you she is receptive and near or at the top of her cycle.

Of course, everybody has a female that does not behave quite like you would hope. She runs and spits every time she's in with a male. This type of female, unfortunately, you may have to breed a couple or three times before you find out exactly where she is in her cycle and get pregnant. And of course, even if you do have a female that sits down immediately you may have to rebreed anyway.

When Do You Re-breed?

Assuming you didn't get her pregnant on the first try, you're going to have to rebreed her. what is the best interval to use? The best way to determine this is to find out all days that she will not be receptive and determine how many days, or part of a day, do you have to wait until she becomes receptive to male.

To reduce damage to the uterus you shouldn't breed every 2-3 days. Many folks will breed females twice or three times then wait a period of 4 to 7 days to allow uterus to heal, then repeat the cycle. I think everybody has their own way of breeding females. Keep in mind if you wait 5.5 days between breedings, you may never get her pregnant.

Finding the Cycle:

Should you not know where she is in her ovulating cycle, worst case scenario would be you expose this female to a male at the last hour after the current follicle has disintegrated. How long do you have to wait until she is receptive again? From the chart let's select day 24 as an example. Early in day 24 she may no longer be receptive and the current follicle is in the process of disintegrating. The next time she will ovulate is day 27 so you have to wait about three days. So to hit it in the middle use four days. From any point on the chart where the female will not be receptive, 4 days later she will be receptive.

As said above: Once the female has been bred the first time (as either a maiden or the first time after giving birth) her natural cycle is interrupted and the chart can no longer be used to accurately predict her ovulation cycle.

This is a work-in-progress. A lot of which (beyond the work by Dr. P. Walter Bravo, DVM) is experimental. There has not been any scientific studies (other than those done by Dr. Bravo) to set it in stone.

The best way to determine how the chart works for you is when you have open females stand them next to a (sturdy) fence with breeding male(s) on the other side. Normally, open females will sit down next to the fence when they are ready to breed (ovulating). Not all females (or males) will act this way but those that do you can make note of the day and hour and compare it to the chart. If your female does not sit down, try to notice a difference in the way the female reacts to the male. Some even though they are not pregnant they may spit at the male (or you!). Regardless of the reaction, track how the female reacts. This is a good way of verifying the receptiveness of the female without breeding them and you will determine when you should breed her.