

# Ask A Vet: Shed Some Light on This

*Sunday, November 16, 2014*

Dear Dr. Weldy's,

I will be breeding a mare in 2015 and I want to try to get her pregnant early in the year. What should I do to get her ready?

Dear Reader,

The natural, physiologic breeding season for our part of the country is from April until October. In my experience, the greatest number of mares will conceive in May, June and July if left to their own devices. This just seems to be the time of the year when they are the most fertile. However, many owners want their babies on the ground in January, February, and March. The reason for this is that all horses have the same birthday, January 1st, according to convention within the equine industry. (So, a foal born in January will be five months older (and quite a bit bigger) than one born in June when the universal birthday rolls around.) Given that the average gestation of the mare is around eleven months, to breed for an early foal means breeding in February, March and April. This matters especially for those colts that will be in the show ring or sold as yearlings and two year olds.

Mares start coming into heat when the hours of daylight get longer in the spring. This changes the melatonin concentrations in their brain which influences hormonal production. All mares go through some form of "transitional period" during the early weeks of this increase in hormone production when they produce multiple follicles or eggs on their ovaries but don't ovulate them. This creates erratic breeding behavior which is hard to predict. So how do we get our mares to come into a reliable heat when we want it? The answer is light. By putting these mares under an artificially lengthened day, you can influence when that mare will probably start transitional heats. It takes about 60 days of a 16 hour period of light per day to bring a mare to her first ovulation. So, if you started the first week of December, by mid to late February you could be breeding your mare. She would have gotten through her transitional period early and her ovaries in February would be acting as if it is May!

A few things to remember. A fixed period of light for 16 hours followed by 8 hours of darkness is ideal. You will gain nothing by increasing the hours of light since the 8 hours of darkness reproduces a natural day in the spring. A minimum light intensity of 10 foot candles should be used. A 100W incandescent bulb in a 12 ft. X 12 ft. stall should be sufficient. Last, but not least, every mare is unique. Some will follow this pattern exactly. Others will not follow it at all. Most will fall somewhere in between these extremes. Be patient. The old adage about breeding mares will always be true. "The only thing predictable about mares are that they are unpredictable."

-Dr. Wade Hammond