Springtime and Breeding

When our thoughts turn to spring, we immediately start thinking of breeding our mares. The mare's thoughts are the same, this is the time of year they start thinking seriously about becoming pregnant.

<u>As we know, the horse is a seasonal breeder.</u> As the days become shorter in the fall, many mares will stop cycling. Their ovaries shrink dramatically. While a cycling mare will normally have ovaries two inches by three inches in size, once she stops cycling her ovaries will be no larger than a walnut (without the hull!).

<u>On December 22</u>, the days start increasing in length and the mare's brain recognizes this change. In about a month it starts sending signals to the ovaries. A month later the ovaries become active and the first follicles appear. By now we are into March. The early follicles may be a little small and there may be several. Upon checking the mare with ultrasound, we can determine this activity of the ovary.

<u>Even if we see several follicles</u> on the ovary, <u>and even even though the mare is showing signs</u> <u>of heat</u>, we know <u>this is not the time to breed</u>. Many mares are bred on this first heat, and this practice will just about wear out the mare and the stallion owner. The stallions appear to be less concerned. A common occurrence is for the mare to show signs of heat and be presented to the stallion. He will be more than happy to breed this mare, as she is probably one of the first of the season! The mare may stand for weeks, so none of these early breedings are successful: *the next heat will remove any embryo produced*.

The reason for all the confusion is this:

- as the ovary becomes active, it sends out a 'wave' of follicles, all of which will be maturing at about the same time.
- There may be anywhere from two follicles to several on each of the two ovaries.
- The largest follicle will produce estrogen, which causes the mare to show signs of heat.
- It will mature and rupture (ovulate) and if there is not another large follicle developing immediately, the mare may cool off a day or two.
- But another follicle will shortly take control, and she will once again be in strong heat.
- If the follicles are nearly the same size, there will be little change in the intensity of the signs and the mare will stay in constant heat.
 - This goes on and on, until the follicles are gone or the mare is treated.

<u>So the first heat of the season is not fertile.</u> Once it passes, and the mare becomes regular in her cycling, we can breed her with a good prognosis for success. A regular cycle is three weeks long and--once showing signs of heat--the mare is 'in heat' for five days.

Of course some mares do not stop cycling for the winter. We have had the opportunity to

check many mares these last three weeks and most have had active ovaries.

<u>Next week</u> we will discuss the management of these mares to assure success with a minimum of breedings.