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Progesterone (the pregnancy hormone) and Its Uses in Mares

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Progesterone is produced by the ovary after ovulation of the egg and prepares the lining of the uterus to accept and nurture the embryo through pregnancy. The hormone also suppresses uterine contraction so the embryo is not dislodged.

For the first two to three months of pregnancy, the ovary is responsible for producing progesterone and its size will increase 2 to 3 fold until the placenta of the embryo takes over production by the 3rd or 4th month.

Near the end of pregnancy, progesterone, along with estrogen stimulates the udder to develop and start producing milk.

For the first 4 months of pregnancy, the ovaries produce enough progesterone to quiet the uterus. However, if the progesterone level is low in early pregnancy, the uterus will start contracting which dislodges the embryo resulting in death of the fetus and the mare will come back into heat.

In problem mares, the progesterone level in the blood can be measured. If it is below **4 ng./ml.** the mare needs additional progesterone to maintain pregnancy. This can be provided by oral doses in the form of **Regumate** or can be given by injection. The levels of progesterone in the blood will determine the amounts and frequency of doses. If the level is below **2 ng./ml.** both injections and daily Regumate are recommended to maintain a more constant blood level.

Suspect mares are:

- Those in their teenage years
- Mares that have lost pregnancies during the 3rd and 4th month
- Mares with a questionable history of carrying a foal
- Mares that repeatedly cycle too soon for the embryo to implant

For your information, other times that mares may be tested for progesterone levels are early spring when a mare seems not to start cycling normally on a regular schedule. Low progesterone levels often explain the "every other year mare".

Also, pregnant mares that have been left on fescue pasture or hay into the 3rd trimester. If she has not developed an udder by the last two weeks of pregnancy, the fescue has suppressed her progesterone levels and she cannot produce milk.

I hope this brief description has been helpful to you. If you believe your mare may be suspect in progesterone deficiency, PLEASE get a knowledgeable veterinarian to help you check her blood progesterone levels at the proper time after breeding (we like to start at 90 days and monitor through the next couple of months) and to recommend the best course of action. Helping maintain progesterone levels will result in many more pregnancies that continue through birth.

I am convinced my great producer HyVista Star would not have given me her last 4 or 5 babies without progesterone supplementation and they went on to be futurity winners, AQHA point earners, NRHA money earners and more.