

PROBLEM MARES TO BREED?

- **Open from last year's breeding season?**
- **Not conceived in last two seasons or more?**
- **Not conceiving while nursing a foal?**
- **Erratic heat cycles or fails to show signs of heat?**

Everybody's the loser when a broodmare fails to get in foal. That open mare costs the breeder, stallion owner, trainer, the performance program....and the genetics are lost **FOREVER**.

So, what's a problem mare? Any mare that:

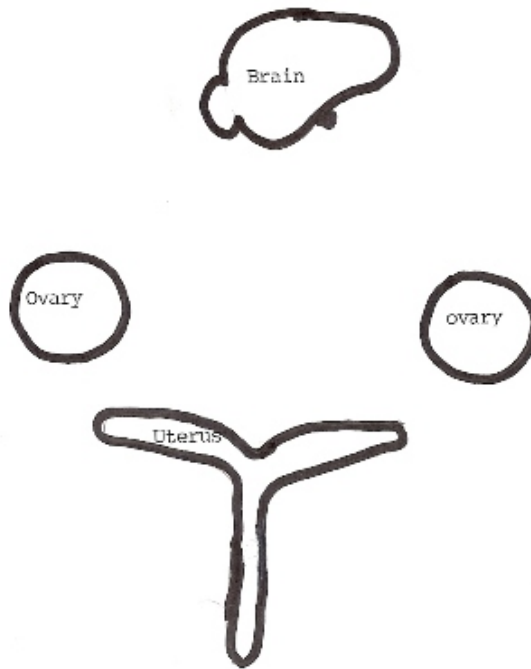
Is bred more than two heat cycles last season and did not conceive.

Has not conceived in last two or more years.

Has history of not conceiving while nursing a foal.

Shows erratic heat cycles or fails to show signs of heat.

Has been unable to carry foals to term.



PROBLEM MARES...The Short Of It...

Looking at the schematic above the major organs involved in getting problem mares (or any other mare) in foal are the brain (source of hormones), the ovaries (source of eggs) and the uterus ("nest" that nourishes, protects, carries and births the foal). Our approach, as in solving any other mystery is to obtain as much information as possible from those reproductive organs in a step by step logical manner. That information is then used to make an assessment of the reproductive health status of the mare and of her potential ability to conceive and give birth to a live foal. When problems are recognized (diagnosed) and there are treatment options to address them estimated costs, risks and expected outcome are provided to the client. **THE INFORMED CLIENT ALWAYS MAKES THE FINAL DECISIONS INVOLVING THE EXAMINED MARE IN THAT PARTICULAR BREEDING SEASON.** Client informed decisions range from proceeding with appropriate treatments to not breeding at all. Guarantee? There is no guarantee that having the mare's breeding soundness evaluated and following all the appropriate breeding procedures will ensure a live foal. We are dealing with a living dynamic biological body in which all things are possible...breeding mares is not like giving them a valid ticket that the conductor punches and welcomes them onto the pregnancy train! The guarantee you do have is that we will work with your mare to give you the client the most current and thorough reproductive information at a reasonable cost and do everything we can to support your breeding decisions.

Every plan has a first step and the problem mare's is undergoing a **Breeding Soundness Evaluation**. Although the exam can be done any time, the optimal time is before the breeding season starts. Waiting until the end of breeding season to address a mare that's been bred multiple times and is still open and trying to breed and treat has not worked well in our hands.

PROBLEM MARES...The Long Of It...

We begin with a general physical exam and general history to rule out any conditions that may hinder reproductive potential. A detailed reproductive history is taken. Since the uterus is one of the organs most accessible to examining and has the most contact with the foal for the longest period of time, it is the first area of focus. A rectal exam is done after the mare's vulvar and anal anatomy are examined. The uterus and ovaries are examined for abnormalities. Next the uterus is cultured to rule out the number one cause of infertility...bacterial infection. The sterile swab introduced into the uterus after sterile scrubbing of the vulva is submitted for culture (which usually identifies 85% of infected mares) and the outer protective covering of the swab is used to prepare a slide for cytological examination of uterine cells (which usually identifies the 15% of infected mares above that culture may not identify). The vagina and cervix is evaluated during these procedures. A biopsy of the uterine lining is taken next using an instrument introduced like the culture swab. A very small "pinch" of the tissue is obtained and submitted to a pathologist who will assess the health of the inner lining of the uterus which is very important in establishing and maintaining the foal. If needed an ultrasound and/or endoscopic (fiber optic scope to visualize vagina and uterus) MAY be conducted to further explore problems.

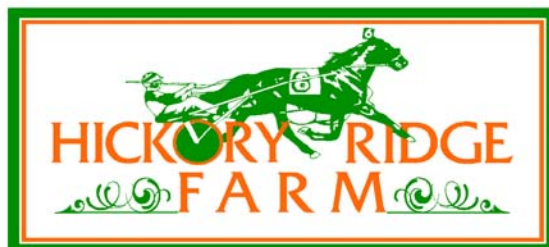
The ovaries are best evaluated by following the formation and release of eggs during a heat cycle. Rectal and ultrasound examinations are appropriate. The role of a teaser stallion cannot be underestimated. The mare's reaction to the stallion is a highly valuable piece of information. Trying to breed a mare without observing this behavior takes at least one third of the information away (the other two factors are health of the reproductive organs and egg development and release). It is very important to compare the internal developments on the ovaries with the outward behavior of the mare. Inconsistencies are as pertinent as consistencies. Ovarian function can also be assessed by taking blood samples to test for specific reproductive hormones and compare the results with normal expected levels for the different phases of the reproductive cycle. Hormone levels may also be useful in determining if the reproductive functions mediated by the brain are active, dormant, present, absent or excessive.

This brings us to the point where most breeders start..... the insemination (or natural breeding) of the mare when she is in heat. There exists a window of opportunity for each and every mare in each and every heat cycle where she is the most fertile. It varies from as little as four hours for frozen semen to twenty-four to 36 hours for cooled semen. The optimal goal is to introduce the highest quality semen (motile, viable, fertilizable in adequate numbers) into the uterus as close to the time the mare releases her egg (ovulates). The best medical and practical approach is to provide the mare with teasing and follow by multiple rectal examination (and when needed ultrasounds) during the heat cycle to as precisely as possible target the mare's window of opportunity. Some medications may be appropriately given to hasten the ovulation. It is here that all the "work" of breeding evaluation and treatments when necessary discussed above pays off. It brings a mare to the breeding shed with the best possibilities for pregnancy.

When following the growth of the egg (follicle) during the breeding heat cycle mares that tend to be unable to clear the semen and built up fluids after breeding can be identified and given appropriate treatment. Also levels of progesterone can be determined and mares that need supplementation to maintain their early pregnancy receive appropriate monitoring.

Even the Long Of It ...does not address all the details of evaluating and breeding the problem mare nor does it speak to issues after breeding and confirmed pregnancy to foaling. Please call, write, fax or email with your specific questions and concerns. NO ONE knows the mare more than the person providing the daily care!!!

Larry J. Smith DVM
Hickory Ridge Farm
Reproductive Evaluation Program
Equine Division Smith Veterinary Hospital



6303S 200E
Berne, IN 46711
Phone: (260) 692-2900
Fax: (260) 589-2087
e-mail: hickory@adamswells.com