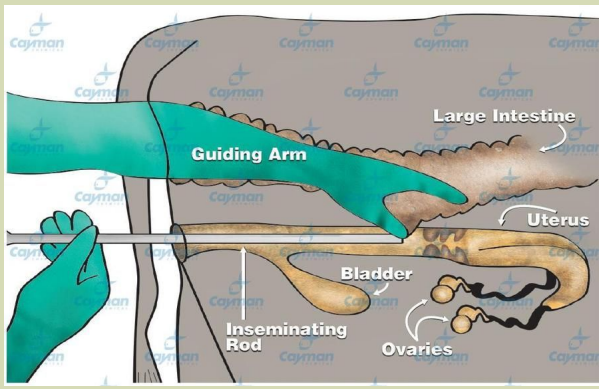


A FARMER'S GUIDE TO SUCCESSFULLY BREEDING HEIFERS

THE COW REPRODUCTIVE SYSTEM

THE TWO WAYS TO IMPREGNATE:

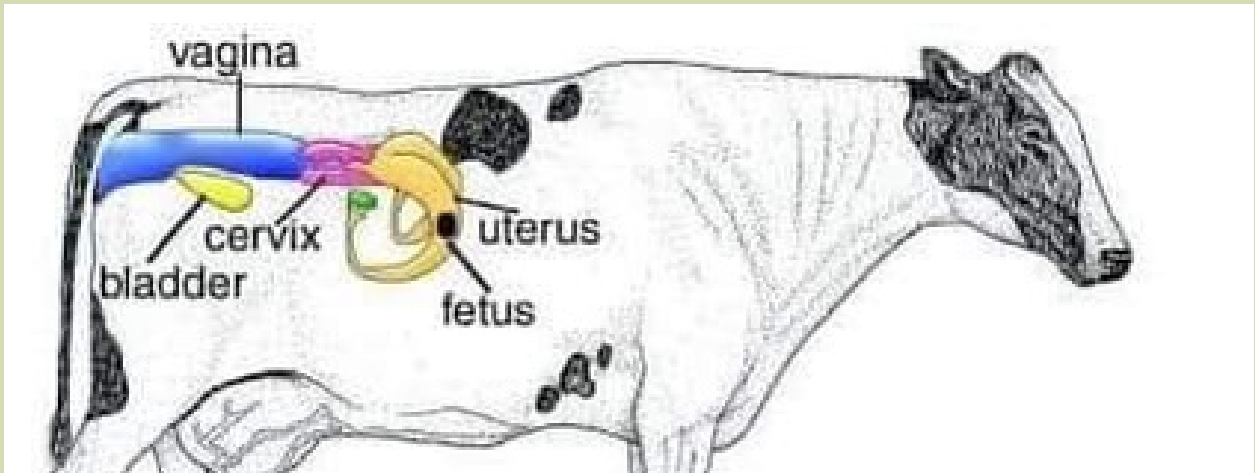
Females cows are also known as heifers reach sexual maturity between the ages of 6-15 months. During estrus, they can be bred by a bull or artificially inseminate (AI) them.



AI is when sperm from a bull is implanted into the heifer using a catheter. The collected semen can be frozen and even from multiple bulls.

DIETARY NEEDS BEFORE/DURING IMPREGNATION

- High-quality hay, pasture, or crop residue
- Change nutrient requirements
- Adequate amounts of macro and micro minerals
 - Zinc
 - Involved in fertilization and egg development as well as fetal growth and milk production.
 - Chromium
 - Improves glucose tolerance and reduces the risk of gestational metabolic disorders
 - Selenium
 - Aids in reproductive health, immune functions, fetal development, and colostrum and milk production
 - Manganese
 - Helps with fetal bone development, physiological processes, and normal ovarian function in the heifer



CALF DEVELOPEMENT

- During the first 60 days, the fetus is developing extremities and hooves that are visible, and transparent
- 60-120 days, four stomachs become visible and the hooves are a yellow color
- 120-210 days lips, chin upper eyelids, and small hairs have developed
- the last 90 days the fetus has fully developed its hair and is about 80-100 cm

HORMONE AND BEHAVIOR CHANGE

- Production of progesterone in order to maintain the pregnancy and prevent them from ovulating again.
- Eating more, nesting, and doing less
- As they are grazing and resting, they may exhibit aggressive behavior toward non-pregnant cows.
- Estrogen is produced to prepare the heifer to start making milk.
- Production of the hormone relaxin, which helps relax the pelvis and allows for easy birthing.

AFTERCARE:

- Clean and treat the exposed naval by dipping it in an iodine solution.
- Watch the heifer and calf closely. It may take 24hrs for those mothering instincts to kick in!
- Keep the heifer and calf in a warm and dry place to decrease the chance of infection.
- It is crucial that the calf receives the colostrum from the first milking!
- The following are extremely susceptible in the first weeks after calving:
 - Mastitis: Symptoms include a hot, painful, red or hard udder and hunky, clumpy, or salty tasting milk.
 - Milk fever: symptoms include staggering, twitching, lowered body temperature, or inability to get up.

Brought to you by:

BREE SMITH AND CATHERINE MACK