

Preventing Pregnancy Loss in Dairy Heifers

Dr. Scott E. Pook
Diplomate ABVP- Beef and Dairy
University of Missouri Veterinary Extension
Commercial Agricultural Program

What is a normal pregnancy loss?

- $\leq 5\%$
- Timing of pregnancy checking



What is the % of abortion by causes?

- Unknown ● 67%
- Non-infective ● 2%
- Fungal ● 5%
- Viral ● 11%
- Bacteria ● 15%



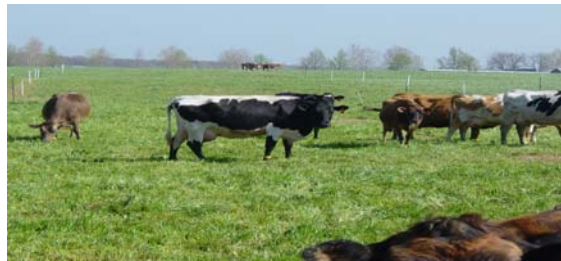
What are the causes of pregnancy loss?

- Lepto (hardjo bovis)
- Bovine Viral Diarrhea (BVD)
- Infectious Bovine Rhinotracheitis (IBR)
- Neoplasia
- Vibriosis
- others

Leptospirosis

Over 200 Serovars

- Pomona
- Grippityphosa
- Abortions
- Stillbirths
- Weak calves



Lepto hardjo bovis

- 35-50% prevalence in US beef and dairy herds
- Not found in common 5-way vaccines
- Infertility and EED
- Vaccines available
 - Spirovac L5
 - Vista 5 L5 SQ
 - Virashield 6 + L5

How do you diagnose leptospirosis?

- Serology
- Isolation



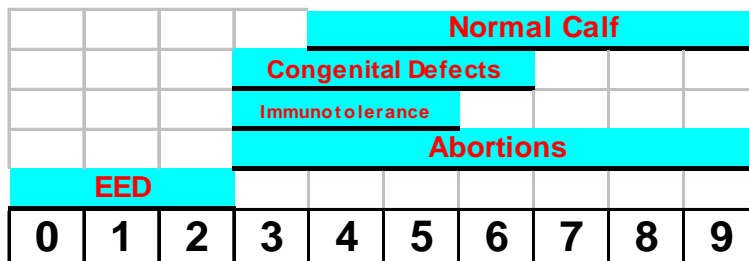
When to vaccinate?

- The earlier in life the better!!
- Typical 5-way
- New Hardjo-bovis varieties



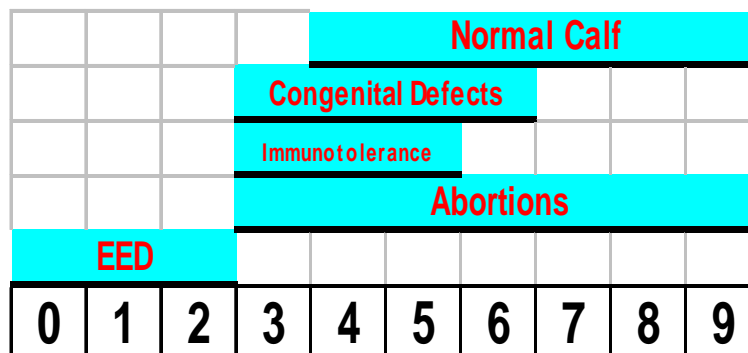
BVD

- Virus affecting multiple organs
- EED to normal calves



What about BVD PI?

- PI = Persistently infected



BVD-PI

- Testing
 - Blood
 - Ear notch
 - Bulk Tank PCR
- Prevalence
 - 0.2%-0.5%
- Cost
 - 2%-82% increase in cost of gain

BVD-PI affects on Health

- | | |
|------------------------|-----------------------|
| ● 100 BVD-PI Calves | 100 Normal Calves |
| ● 2.4#/ day gain | 3#/ day gain |
| ● 35% sick and treated | 3% sick and treated |
| ● 92 calves exposed | 92 calves non-exposed |
| ● Not vaccinated | Not vaccinated |
| ● 29% sick and treated | 10% sick and treated |

Vaccinating for BVD

- Prebreeding
- Fetal protection
- Vaccines safe for pregnant heifers if vaccinated prior to breeding
- Bovi-Shield Gold FP5 (Pfizer)
- Pyramid 5 and 10 (Fort Dodge)
- Cattlemaster Gold (Pfizer)
- Vaccines to be used only in open heifers
- Jencine 4 (Schering Plough)
- Breed Back FP10 (Boehringer Ingelheim)

IBR

- Abortion storms
- 2nd half of gestation
- Vaccination of heifers pre-breeding



Neospora

- Dogs
- Vertical transmission
- Abortions at 5-6 months
- Serology
- Feed and water contamination

Neospora

- Vaccination schedule
 - First dose after the first breeding
 - Second dose 30 days later
- Subsequent lactations a booster is given at pregnancy diagnosis

- Dr. Don Gardner, Huddleston, Virginia

Vibriosis

- Venereal
- Abortion in first trimester
- Bull bred herds
- Vaccine available



Others

- Trichomoniasis
- Fungal/mycotoxins
- Brucellosis
- Urea/mycoplasma
- Haemophilus
- Listeria
- Toxins

Generic Vaccination Schedule

- 1 month of age
 - Lepto Hardjo + 5-way lepto
- 2 months of age
 - Lepto Hardjo + 5-way lepto
- 4-6 months of age
 - Modified Live Virus (MLV)
- Prebreeding
 - MLV
 - Lepto Hardjo + 5-way lepto

Other Considerations

- Housing (shade)
- Movement of heifers
- Nutrition
- Heat stress

The End

