

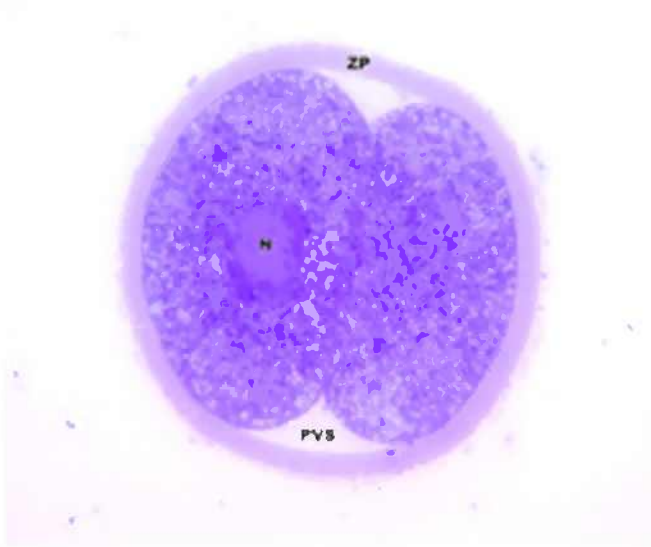
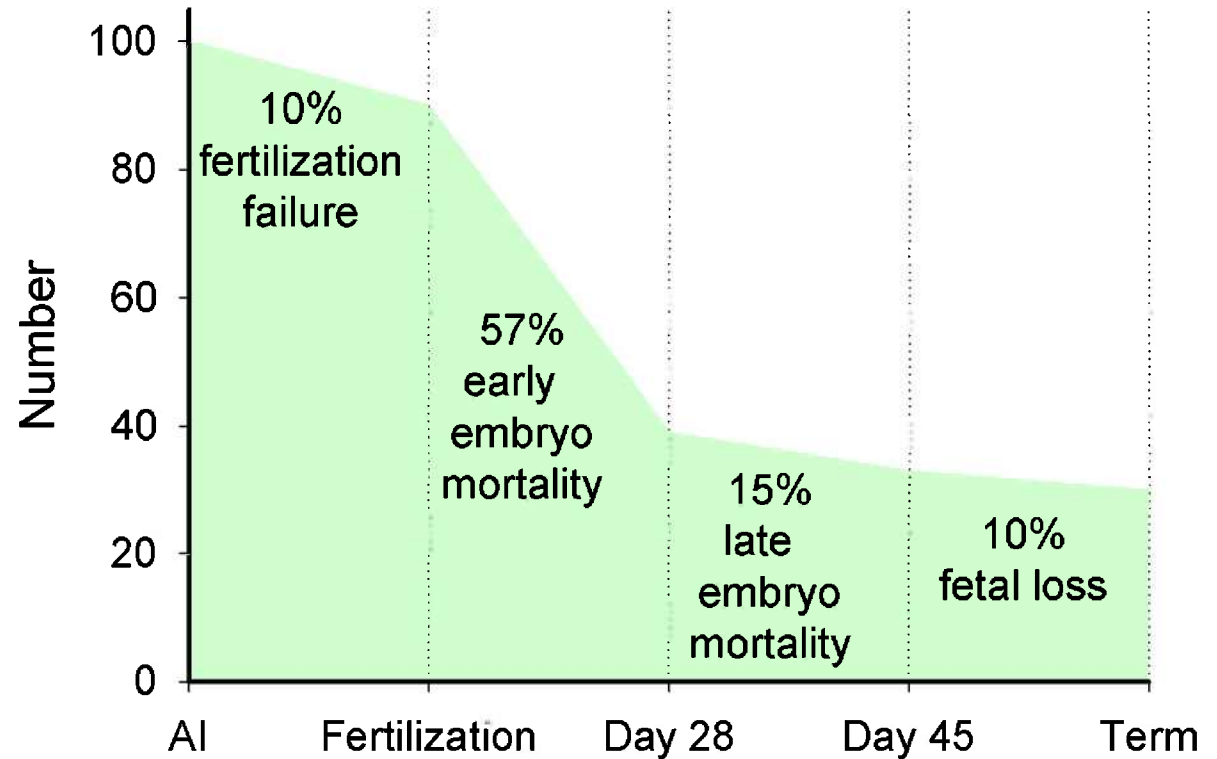
A detailed oil painting of a black and white cow standing in a green field, looking down at her calf who is lying on the grass. The cow's head is in the foreground, and the calf is positioned directly in front of it. The background is a soft, out-of-focus green field under a light blue sky.

# Strategies to Improve Embryonic Survival

***Miracle of Milk***

**Denise Rich, [www.therichartist.com](http://www.therichartist.com)**

## Approximate Embryonic and Fetal Losses When Calving Rate is 30%



Two-cell Bovine Embryo

Embryo

Cow

### SURVIVAL DEPENDS ON

- Genetic inheritance
- Non-genetic inheritance (from egg & sperm)
- Environment

US

Palpation

## Conception Rate (or Pregnancy Rate) is not the Same as Embryonic Survival

The cow won't get pregnant if:

She wasn't in heat.....

The semen had gone bad.....

The semen was deposited in the wrong place.....

### Treatments to Improve Embryonic Survival Won't Solve These Problems:

*heat detection*

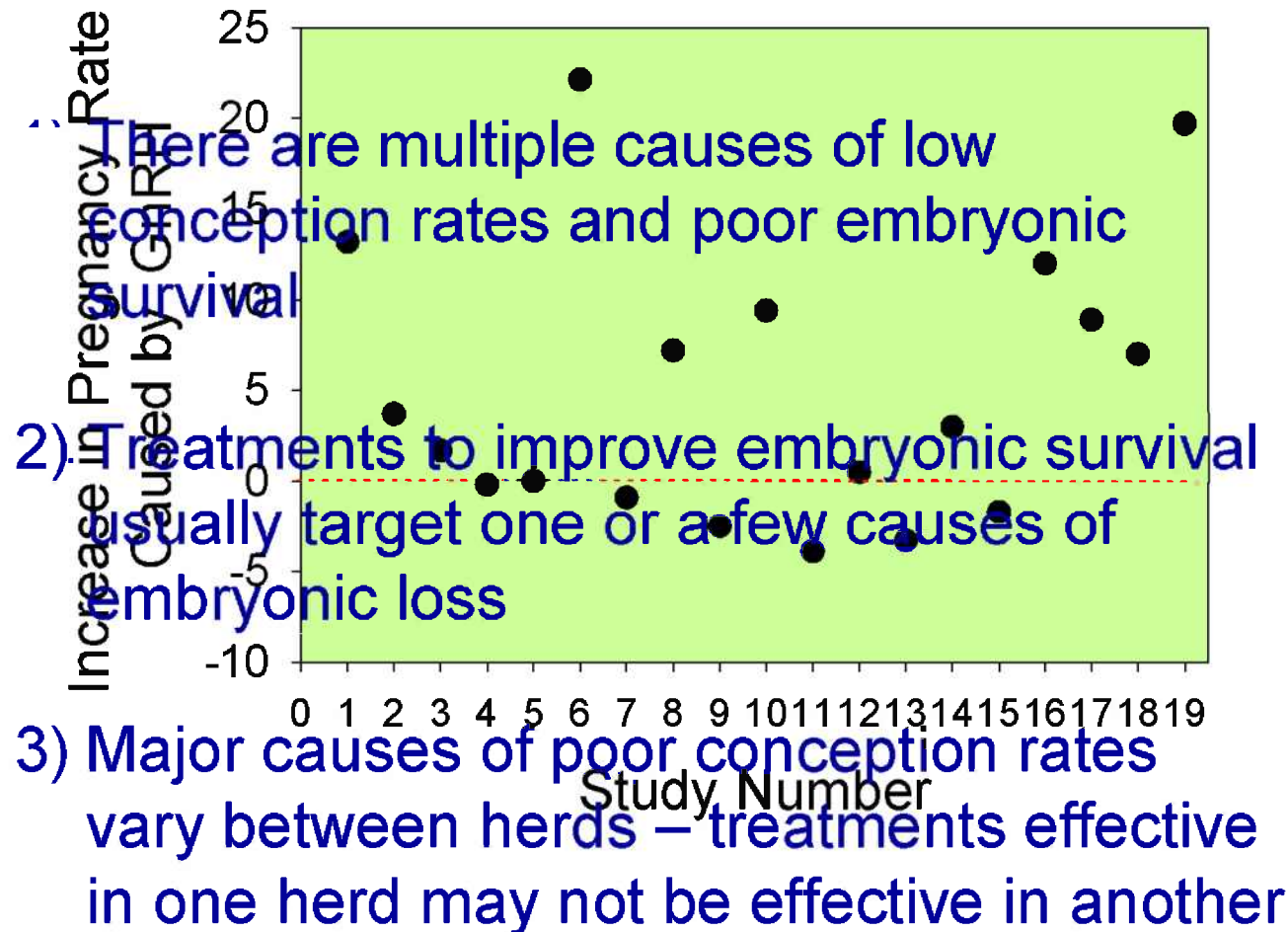
*use of wrong TAI protocols*

*missed injections*

*poor semen storage*

*unskilled inseminators*

# Be Careful When Interpreting Fertility Studies



4) It takes a lot of animals to have confidence that a treatment improved pregnancy rate

# STRATEGIES FOR IMPROVING EMBRYONIC SURVIVAL



**Use pharmaceuticals**



**Modify nutrition**

**Promote health and cow comfort**

**Use embryo transfer**

**Change genetic composition**

