

Herd Health Overview

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Animal

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What is the Goal?

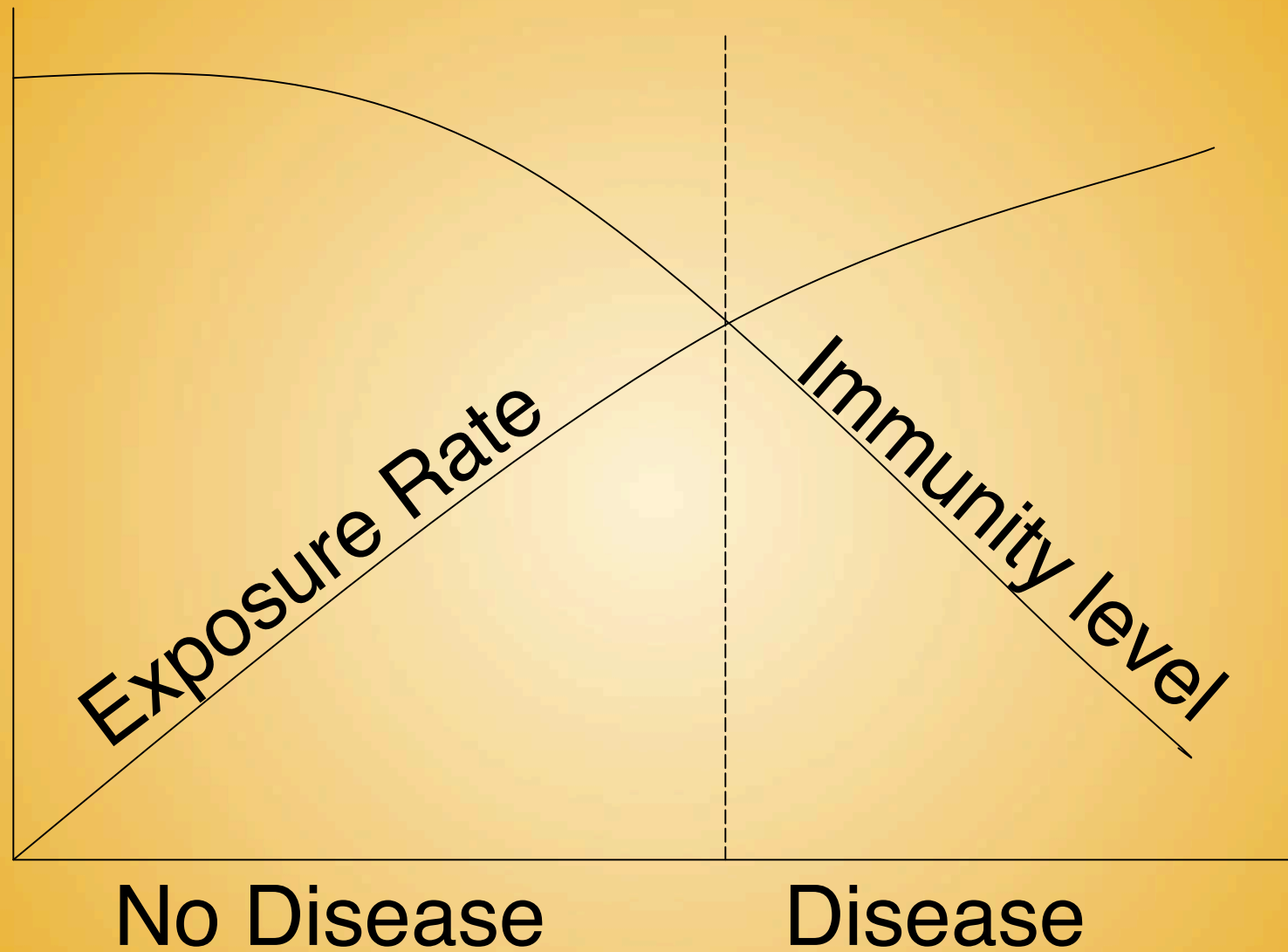
- Eliminate death loss?
- Insure that you won't have sick animals?
- Eliminate the need to spend money on animal health products?
- Market the most possible pounds of livestock with the least possible health care expense?

Vaccination Programs

- Vaccination programs are like insurance programs, they need to be custom designed for your operation.



- **In today's world you can't afford to pay for a product you don't need, but you can't afford to be without the products you do.**
- **Understand how to get the most immunity out of your vaccines, it's not black and white.**
- **Your local veterinarian should be your partner in designing a program that's effective but efficient.**

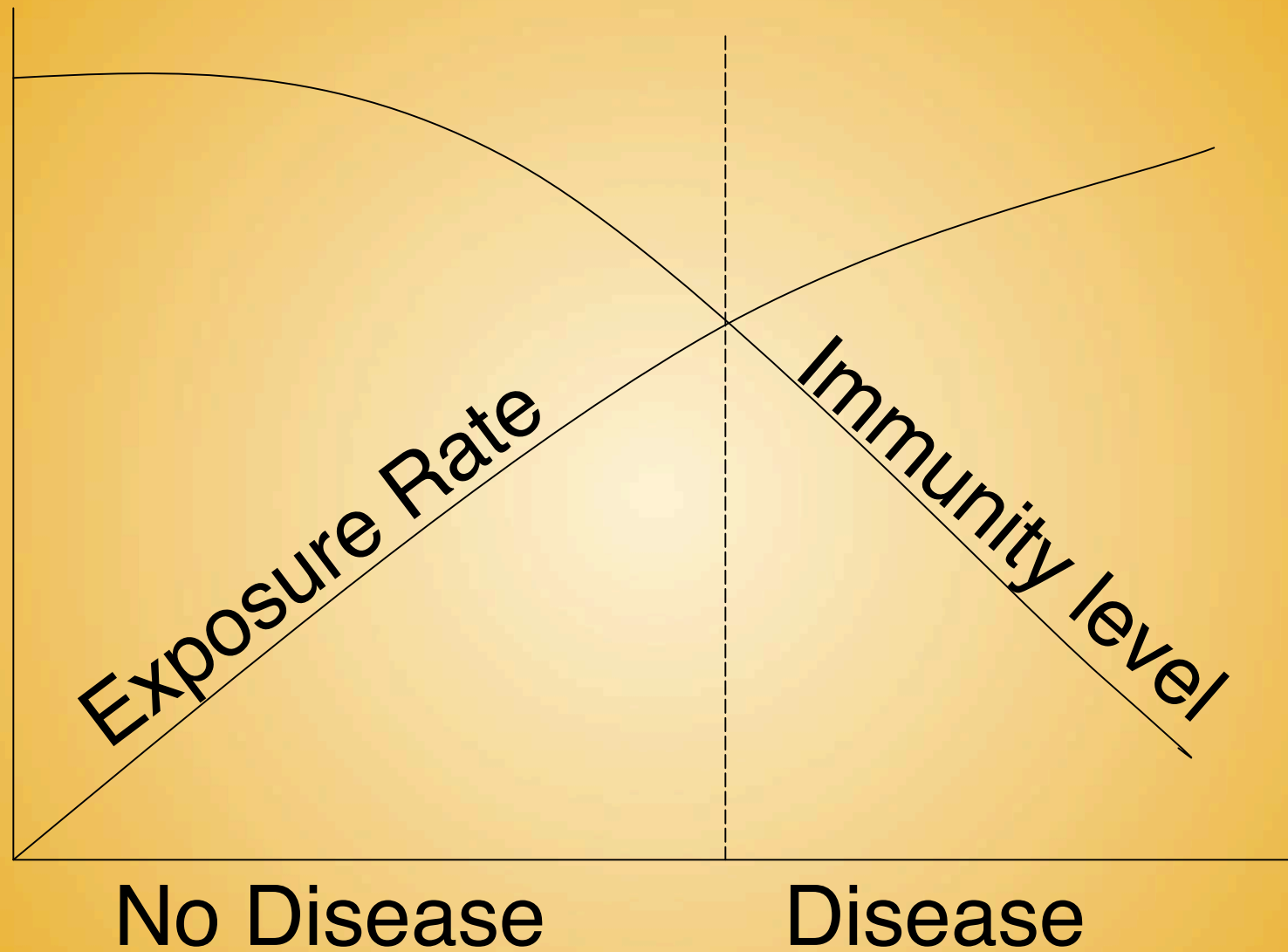


Factors that Influence Immune Response

- All vaccines are labeled “For Use in Healthy Animals”
- Vitality
 - The system cannot respond well if it is currently fighting a disease or depleted from fighting
- Nutrition
 - Protein, trace minerals (Copper and Zinc)
- Stress
- Success or failure of passive transfer.

Factors that Influence Exposure Rate

- Sanitation- Cleanliness is next to Godliness
- Concentration- animals per unit of space
- Biosecurity – What's on the other side of the fence stays on the other side of the fence.
- Insect Control
- Carriers – Recovered animals can infect susceptible animals, more carriers = more exposure



Vaccine Labels

- The label of any vaccine is a legal document
- When you purchase a vaccine you are agreeing to use it according to the labeled instructions as to dose, route of administration, timing and number of doses, species, etc.
- Federal law provides for penalties if labeled instructions are not followed.
- Manufacturers are released from liability if labeled instructions are not followed.

Killed vs. Live Vaccines

- Killed is usually considered safer.
- Live virus vaccines provide stronger and longer lasting immunity.
- Killed vaccines usually cause more local pain and stress to the animal due to adjuvant.
- Some live virus vaccines can temporarily delay ovulation in heifers.
- Live virus vaccines are usually a little less expensive.

Storage and Handling of Vaccines

- Observe label instructions for refrigeration and exposure to light.
- Mix up only what you can use in about 30 minutes.
- Ice chests help keep vaccines cool in summer.
- Never insert a used needle back into the vaccine bottle.
- Destroy unused vaccines at their expiration date.

Administration of Vaccines

- If given a choice administer vaccines subcutaneously.
- If vaccines must be given IM, give them only in the neck region.
- Select products with the smallest possible dose.
- Use the smallest needle size that will effectively handle the product.
- Replace needles frequently.

Antibiotics

- Rx or OTC?
- New FDA guidelines!
- Feed additives.
- Withdrawal times are important!
- Follow the label!!

Do you need a veterinarian?

- Client/Veterinarian/Patient Relationship
- Make your veterinarian a part of your team!
- Observe animals to give your veterinarian the best information you can.
- Take temperatures!
- Schedule regular visits.
- If your relationship is not working, look for another one.

Dystocia (Difficult Birth)

- There's more to it than getting a calf, lamb, or kid on the ground and keeping everyone alive.

Dystocia (Difficult Birth)

- **Causes up to 30% of all calf losses to weaning (500 lbs).**
- **Causes failure of passive transfer.**
- **Causes poor calf performance.**
- **Causes slow return to cycling-
prolonged calving interval.**
- **Causes poor conception rate – lower calving percent.**

Research Results of Length of Stage II of Labor

	No. of Animals	Length of Stage II
USDA (Mont)	24 mature cows	22.5 min.
USDA (Mont)	32 first calf heifers	54.1 min.
OSU	32 first calf heifers	63.4 min.

Minimize Dystocia Impact

- **Early assistance results in 9% increase in number of females cycling at beginning of breeding season.**
- **14 % increase in pregnancy rate**
- **More calf survival**
- **Up to 10% increase in performance of calves**
- **Develop and use protocol!!**

Factors Affecting Transfer of Passive Immunity



⇒ **Amount of colostrum**



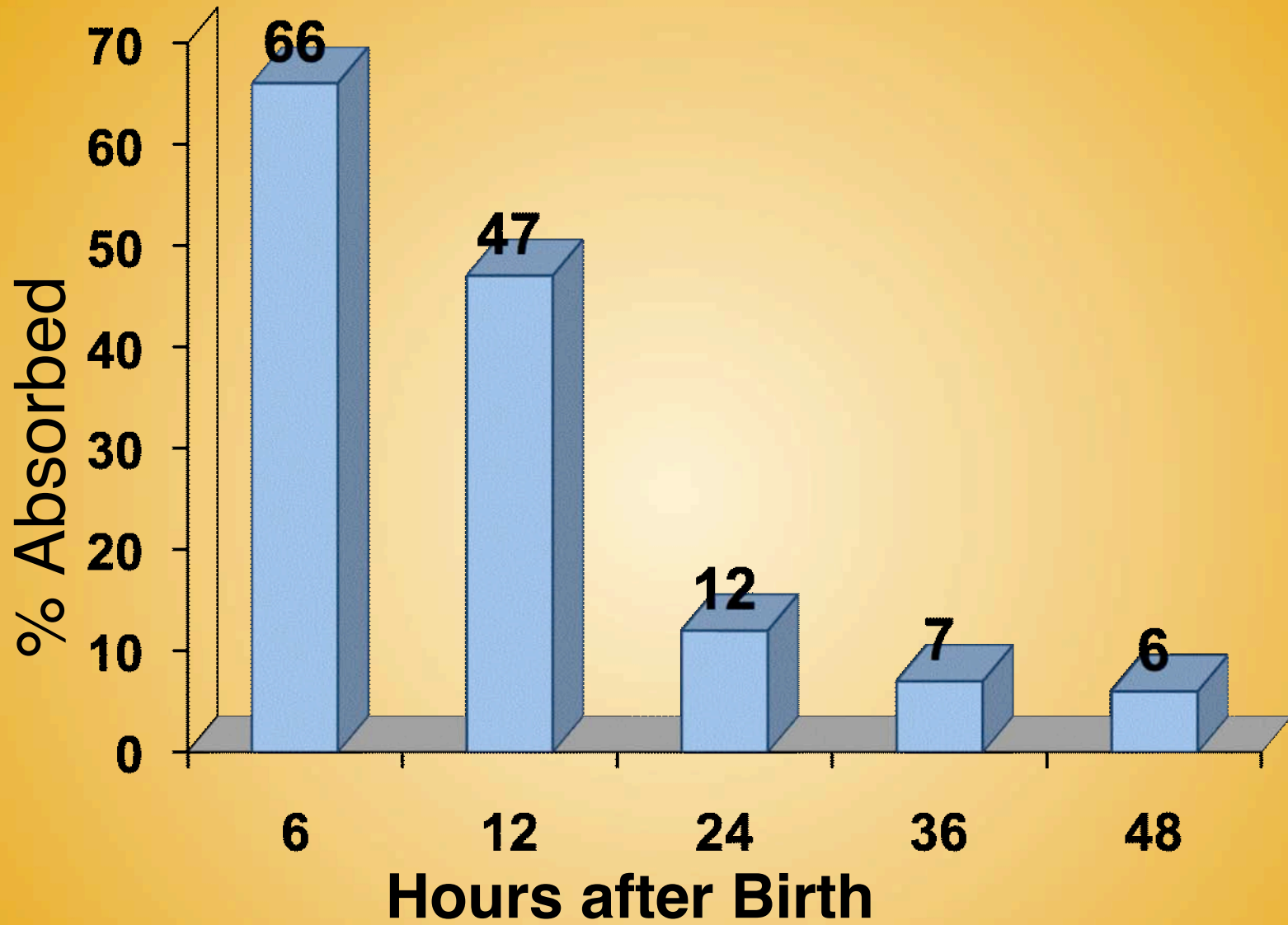
⇒ **Time of 1st feeding**

Calves with Inadequate Immunoglobulin (antibody) at 24 Hours after Birth

Wittum and Perino, 1995

- ⇒ **Baby calf sickness (5.4 X)**
- ⇒ **Preweaning sickness (3.2 X)**
- ⇒ **Death before weaned (6.4 X)**
- ⇒ **Correlated with wean wt. ($r=.32$)**





Udder Confirmation

- Calves must get all of their immunity to protect them for the first several months of life from the colostrum or first milk.
- They can only absorb the large immuno-proteins in the colostrum for the first few hours of life.
- Calves nursing cows with bad bags or enlarged teats will likely not get sufficient colostrum in time for it to do them any good.
- Insufficient colostrum makes calves susceptible to calf diarrhea, and pneumonia. They tend to be poor performers for their entire life through finishing.



Effect Of The Dam's Udder Structure On Time To First Suckling By Calves

Height of teats	Time to first suckling (hours)	Percentage of calves not suckling within 6 hours of birth
More than 3 inches above hock level	2.1	17
At hock level	3.5	28
More than 3 inches below hock level	5.3	45

Source: United Kingdom National Agricultural Center Calif Unit, as quoted by S. Brooke in Hoard's Dairymen. 1984.

If You Can't Achieve 90+% Calf Crop Weaned...

- There is not a Silver Bullet
- Evaluate herd management
- Change Cow numbers &/or type

Never forget that you get paid for how many total pounds of calves you wean and sell, not how many cows you have, or how big they are.



Questions?

