

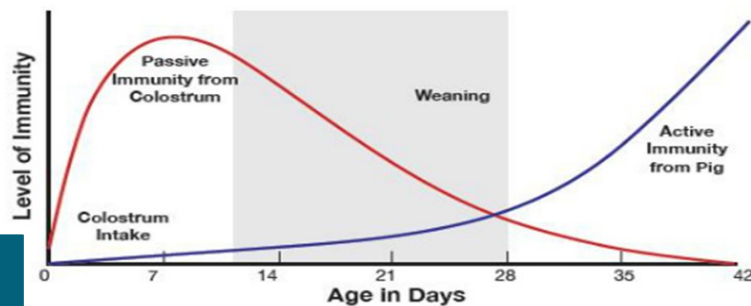
Serology analysis—blood tests that look for antibodies!

IMMUNITY

- ◆ Piglets are born with no antibodies
- ◆ Colostrum is essential as it contains antibodies and peaks at **day 7**
- ◆ Sow passes antibodies to the piglets via the colostrum

- ◆ Protection from colostrum declines rapidly from **week 4**
- ◆ Piglet starts producing antibodies to defend itself from disease

- ◆ Older sows often have **more antibodies** in their colostrum than gilts
- ◆ **Gilts** immune system may **not be fully developed & shed more pathogens, placing their piglets at greater risk**

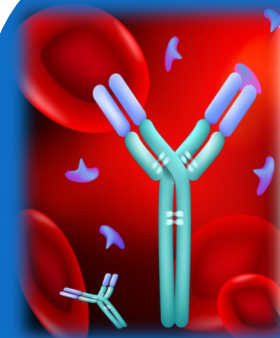


At weaning immunity is lowered (immunity gap) which results with the piglet being at its most vulnerable

- ◆ Sow vaccination may result with **increased concentration of specific antibodies**

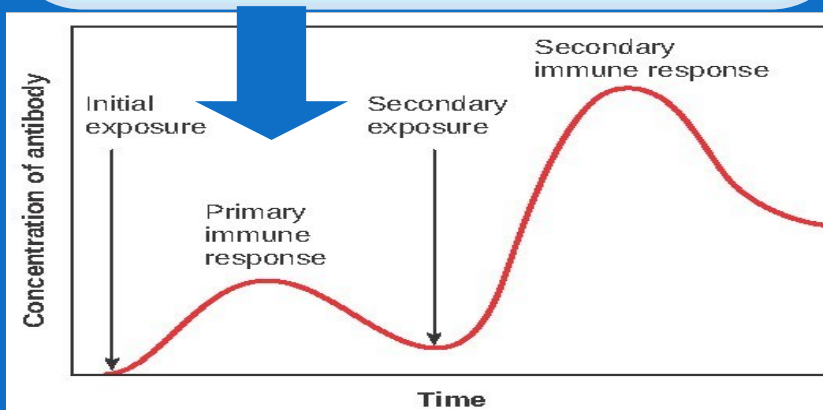
- ◆ Active immunity will not be fully developed until at least 2 weeks after weaning (**day 42**)
- ◆ Keep piglets of gilts **separate** from those of adult sows & **vaccinate gilts to increase immunity**

MEASURING ANTIBODIES



- ◆ Antibodies are easily obtained in the blood
- ◆ Possible to follow and graph the levels of antibodies present for specific diseases

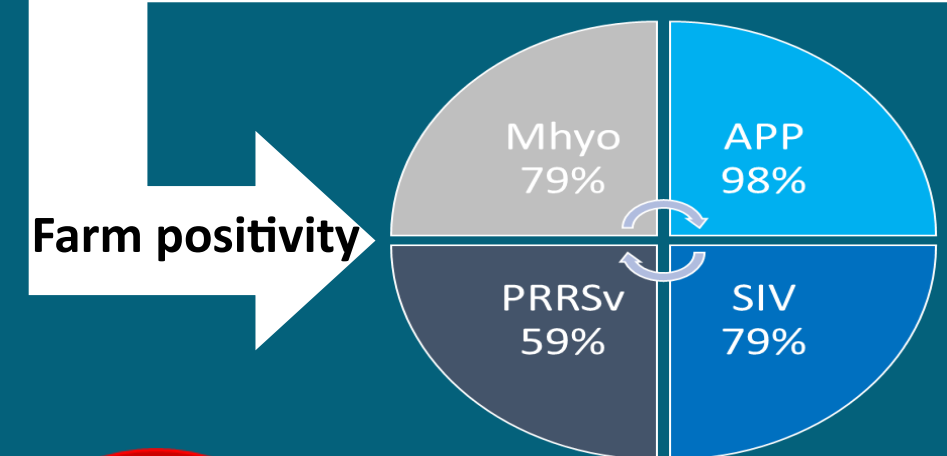
- ◆ Antibody titer detects the presence and measures the amount of antibodies present
- ◆ Initial response to the pathogen is delayed by a few days.
- ◆ Second time the same pathogen is encountered, the immune system responds more rapidly and aggressively



- TIPS**
- ◆ When weaning, pigs should be moved into a clean, warm pen
 - ◆ Separate piglets into batches using an 'all-in/all-out' system
 - ◆ Provide optimal feeding and water intake
 - ◆ Keep littermates together
 - ◆ Prevent carrying out treatment on Day 1 as colostrum **intake is essential**

ANTIBODY DETECTION

- ◆ ~30% of Irish breeding herd was analysed
- ◆ Performance data collected from Teagasc e-ProfitMonitor



Mhyo



- ↓ Average Daily Feed Intake
- ↓ Negatively Affects Performance
- Less 86g/day in ADFI**

PRRSv



- ↓ Average Daily Feed Intake
- ↓ Average Daily Gain
- ↑ Higher Age at Sale
- ↓ Negatively Affects Performance

Lose 31g/day in ADG

Takes 5 extra days to reach slaughter weight

Serology is a useful tool to monitor the health status of a herd