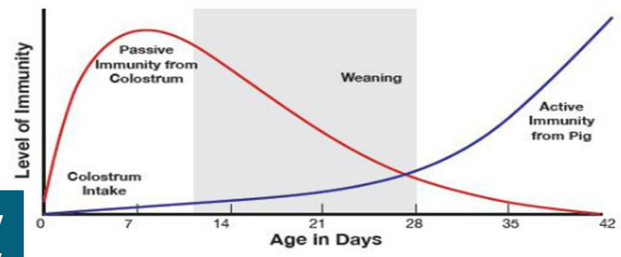
Serology analysis—blood tests that look for antibodies!

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

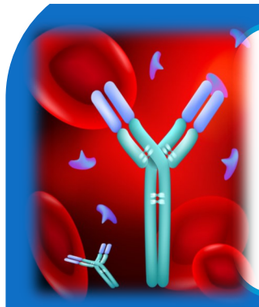
- Older sows often have more antibodies in their colostrum than gilts
- Gilts immune system may not be fully developed & shed more pathogens, placing their piglets at greater risk



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

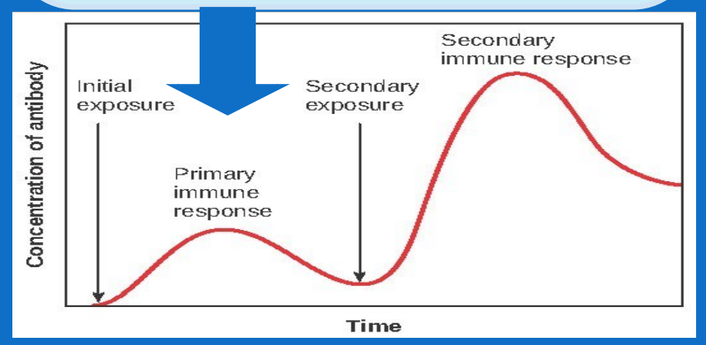
- Sow vaccination may result with increased concentration of specific antibodies
- Active immunity will not be fully developed until at least 2 weeks after weaning (day 42)
- Keep piglets of gilts separate from those of adult sows & vaccinate gilts to increase immunity

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

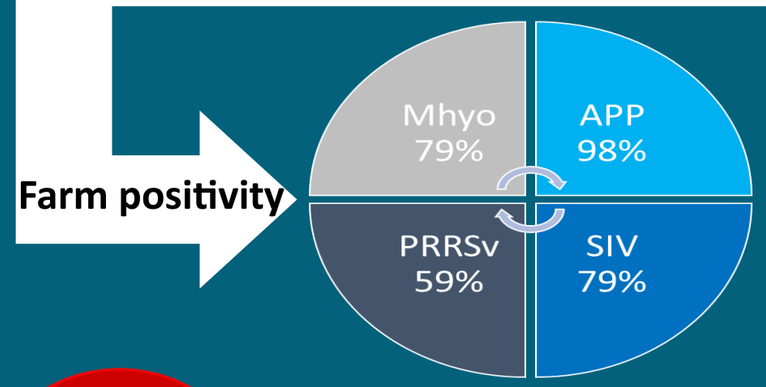


TIPS

- 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

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