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

**Mho**
- 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

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

**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

**FARM POSITIVITY**
- Mho 79%
- APP 98%
- PRRSv 59%
- SIV 79%

**SEROLOGY**
- A useful tool to monitor the health status of a herd
- At weaning immunity is lowered (immunity gap) which results with the piglet being at its most vulnerable

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