

Titel:

Variation i fækalt tørstofindhold og udskillelse af *Lawsonia Intracellularis* inden for samme dag hos ungsvin.

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Baggrund

Regional tarmbetændelse:

- Diagnostik på levende dyr anno 2008
- Nyligt udviklet diagnostisk metode på DVI
- PhD projekt på KU-LIFE

Formål

- To investigate the daily variation in faecal dry matter in one day for groups of diarrheic as well as of non-diarrheic pigs.
- To investigate the quantitative faecal shedding profile of diarrheic as well as of non diarrheic pigs in one day with regard to *Lawsonia intracellularis*.
- To analyse faecal dry matter and faecal copies of *Lawsonia intracellularis* and evaluate possible association between the two of them.

Materiale & metoder

- 30 grise udvalgt
- 5 x gødningsprøver på 10 timer
- Tørstofbestemmelse på gødning
- Udskilte *L. intracellularis* kvantificeres i gødningen



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Resultater, Tørstofvariation

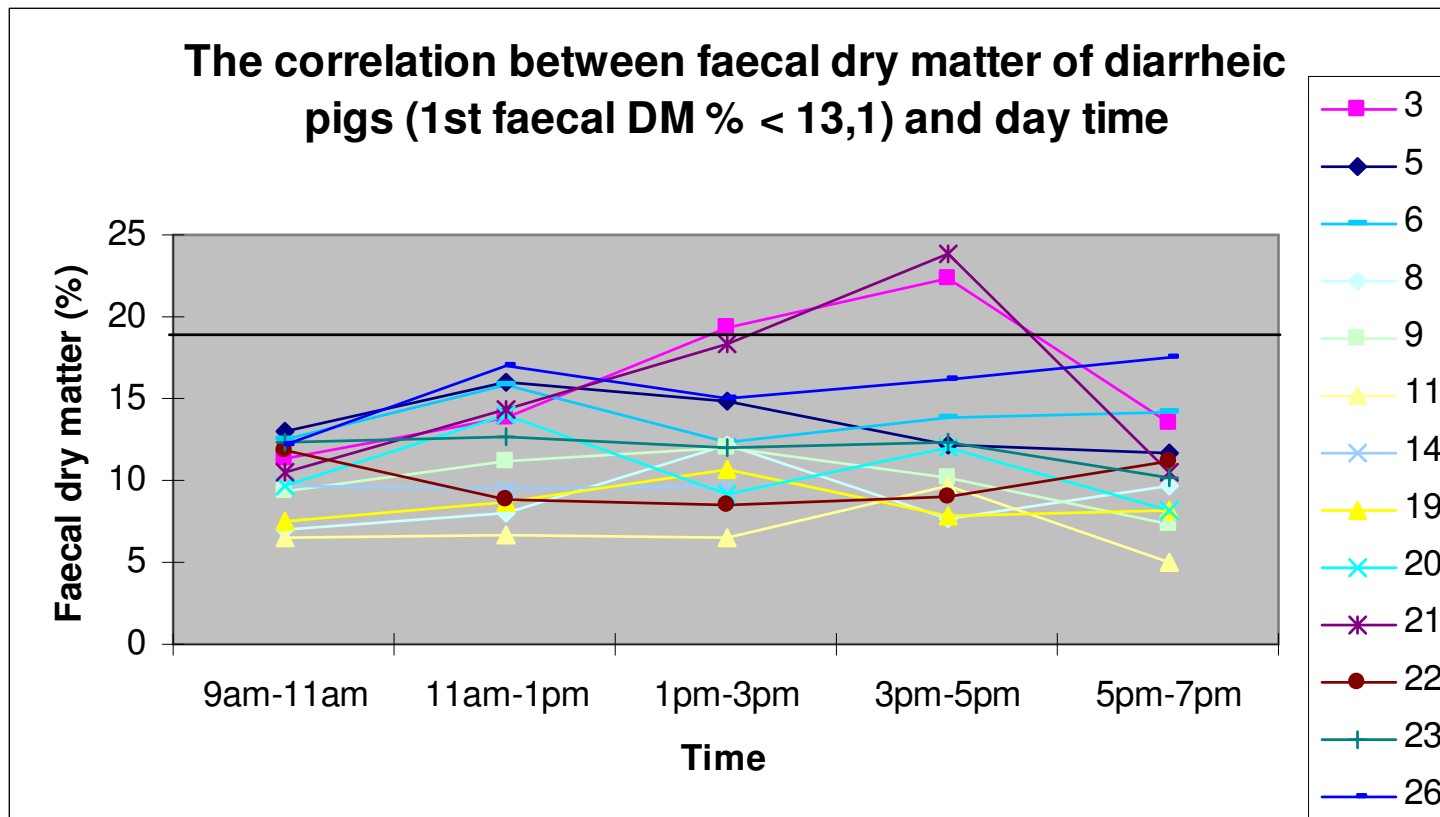


Figure F: The progression of faecal dry matter over a time period of 10 hours in 13 initially diarrheic pigs based on five faecal samples. Horizontal line at 18,8% defines faecal dry matter cut-of for diarrhoea.

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Resultater, qPCR

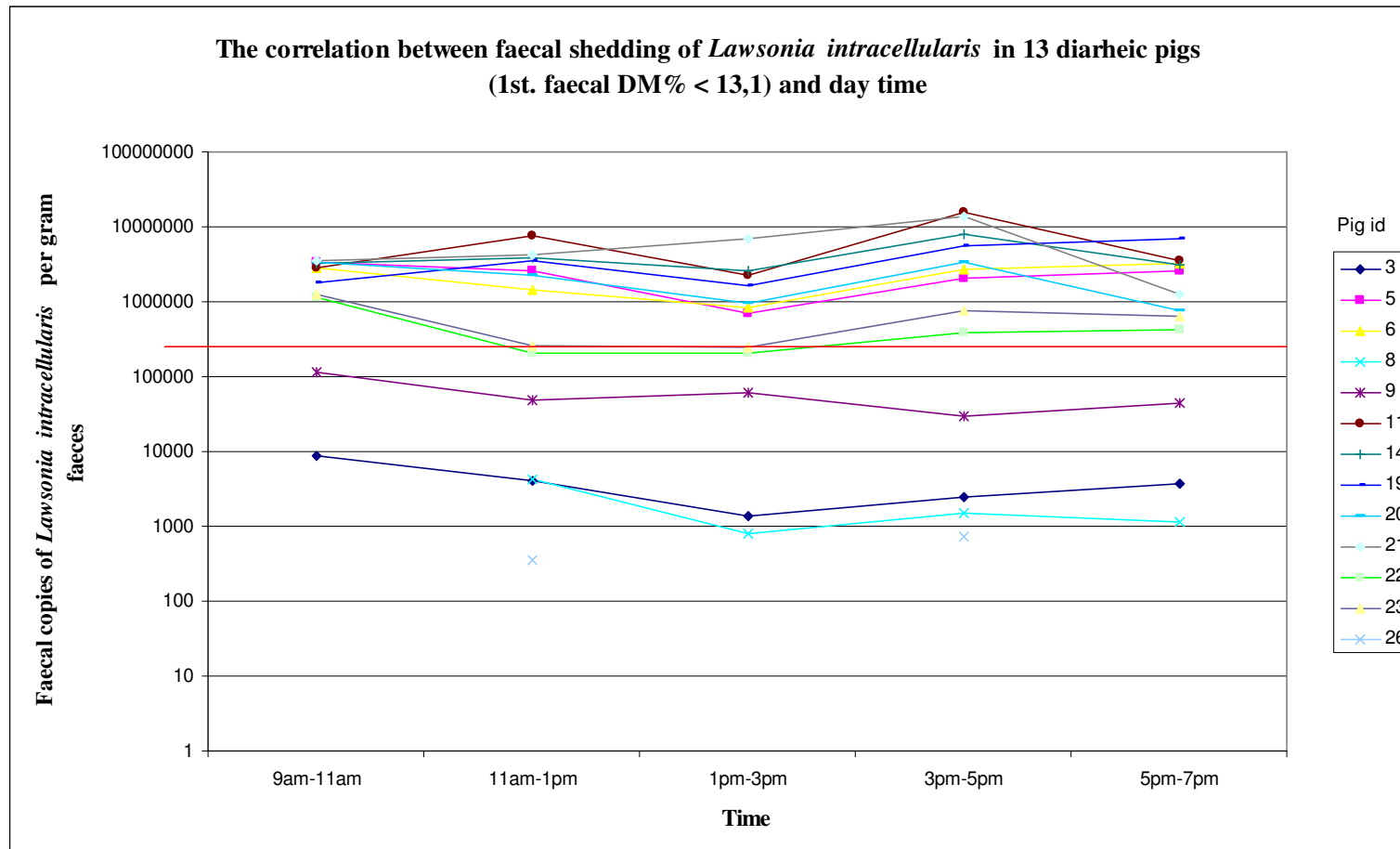


Figure M: The progression on faecal copies of *Lawsonia intracellularis* in 13 diarrheic pigs over day time based on five faecal samples. Horizontal red line defines the geometric mean of 276.188 bacterial copies per gram faeces over the entire period.

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Resultater, Tørstof vs. udskilte *Lawsonia intracellularis*

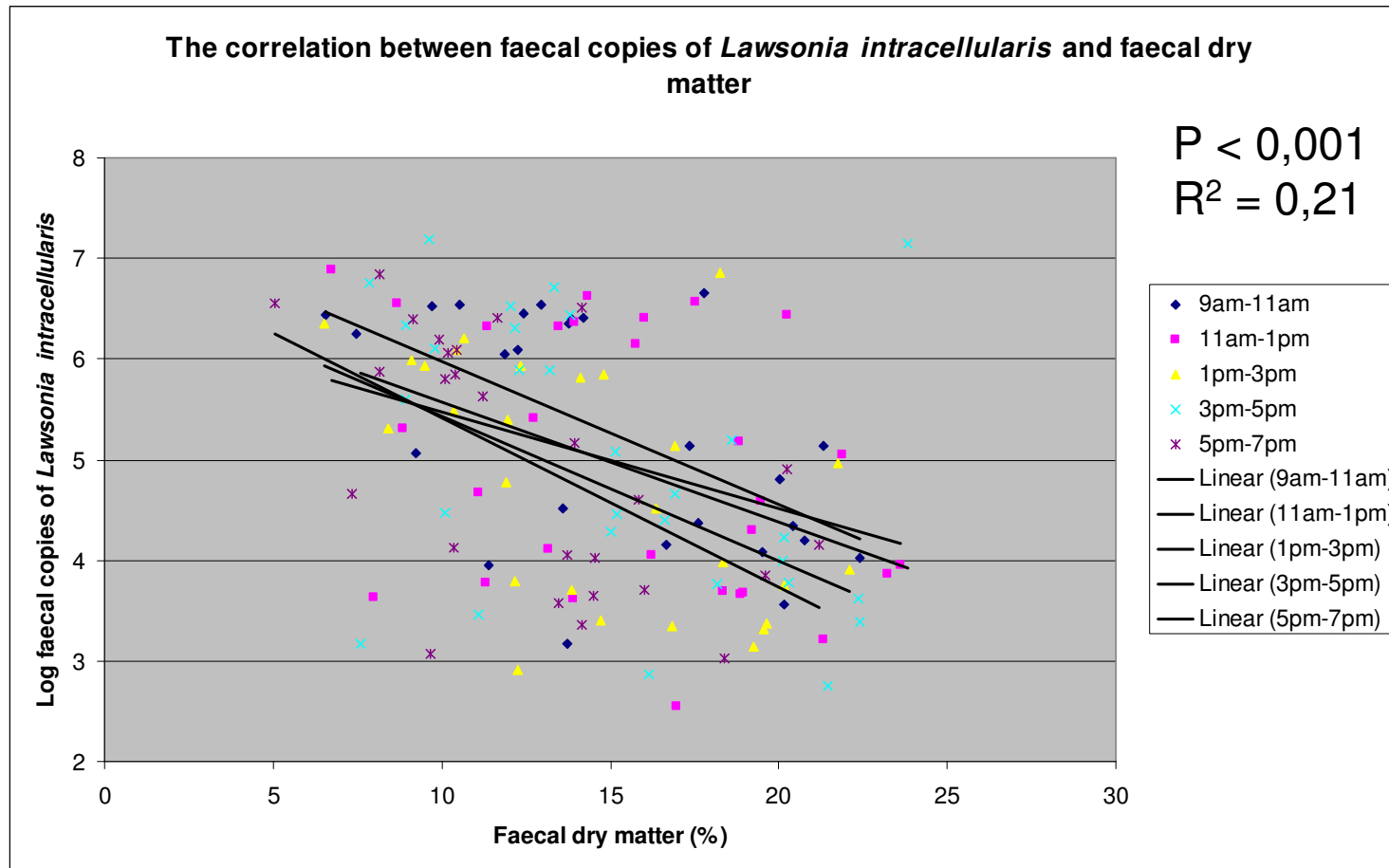


Figure O: The correlation between faecal copies of *Lawsonia intracellularis* and faecal dry matter based on 5 faecal samples over 10 hours of 30 pigs.

Konklusion/diskussion

Tørstofvariation:

- Stor individuel variation (12-13 % point)
- Tidseffekt på gødningstørstof for grise med & uden diarré?

Udskillelse af *L. intracellularis*

- Max udskillelse er registreret til 15,7 mill. DNA kopier pr gram gødning
- Individuel variation under 1,09 log enheder uanset startudskillelse.
- Laveste gennemsnitsudskillelse i tidsperioden fra 13-15 ($p < 0,02$)

Udskillelse af *L. intracellularis* vs. gødningstørstof

- Neg korrelation mellem fækale kopier af *L. intracellularis* og fækalt tørstof ($p < 0,001$).

Hvad kan vi bruge det til?

Fortsat udvikling af kvantitativ test på fæces for diagnosticering af PE

- Lav individuel variation
- korrelation mellem TS% & udskillelse

Tak til

- Boehringer Ingelheim for finansiel støtte.
- DTU veterinærinstituttet

Spørgsmål?