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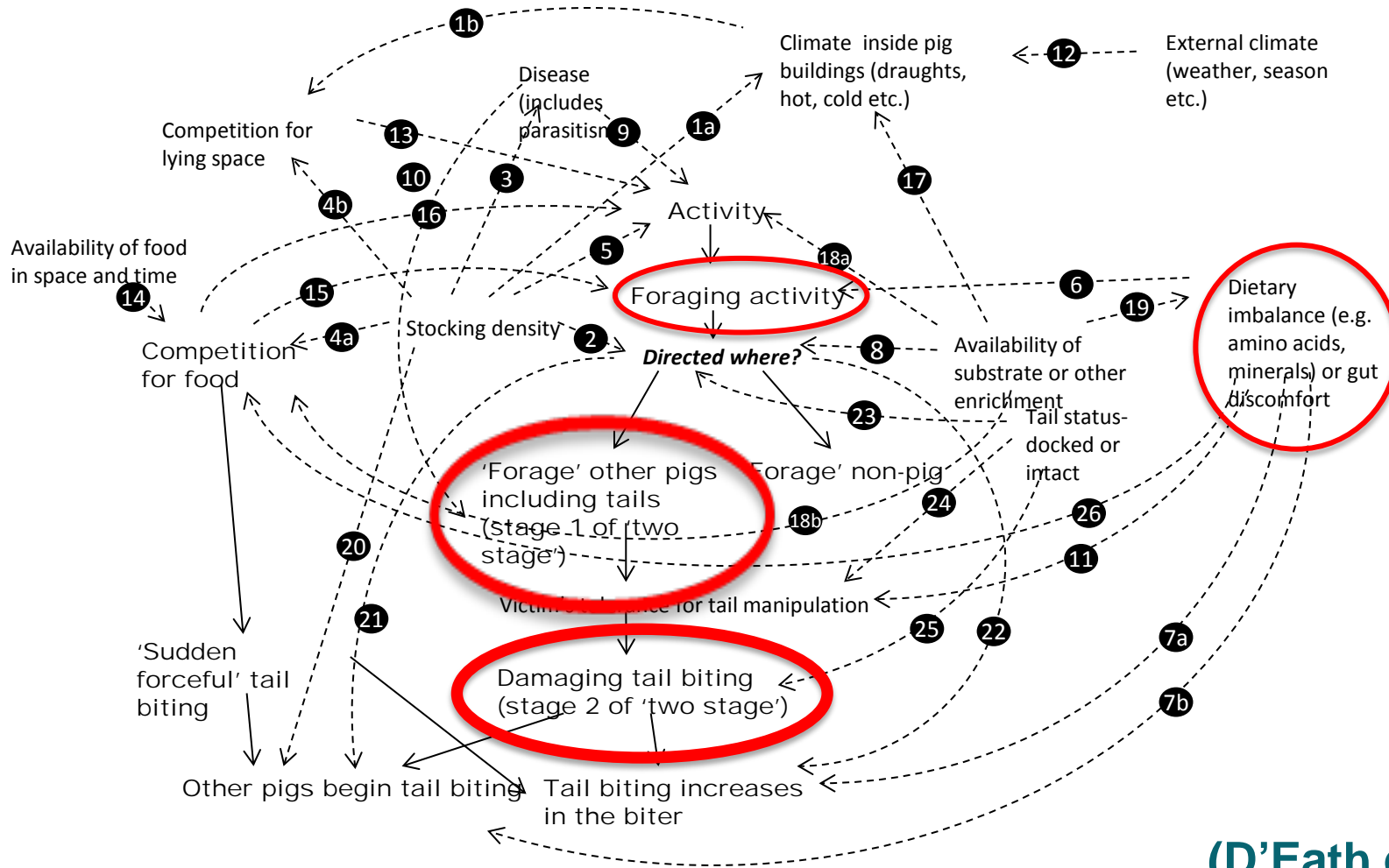
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INTACT TAILS – A CHALLENGE!

OUTLINE

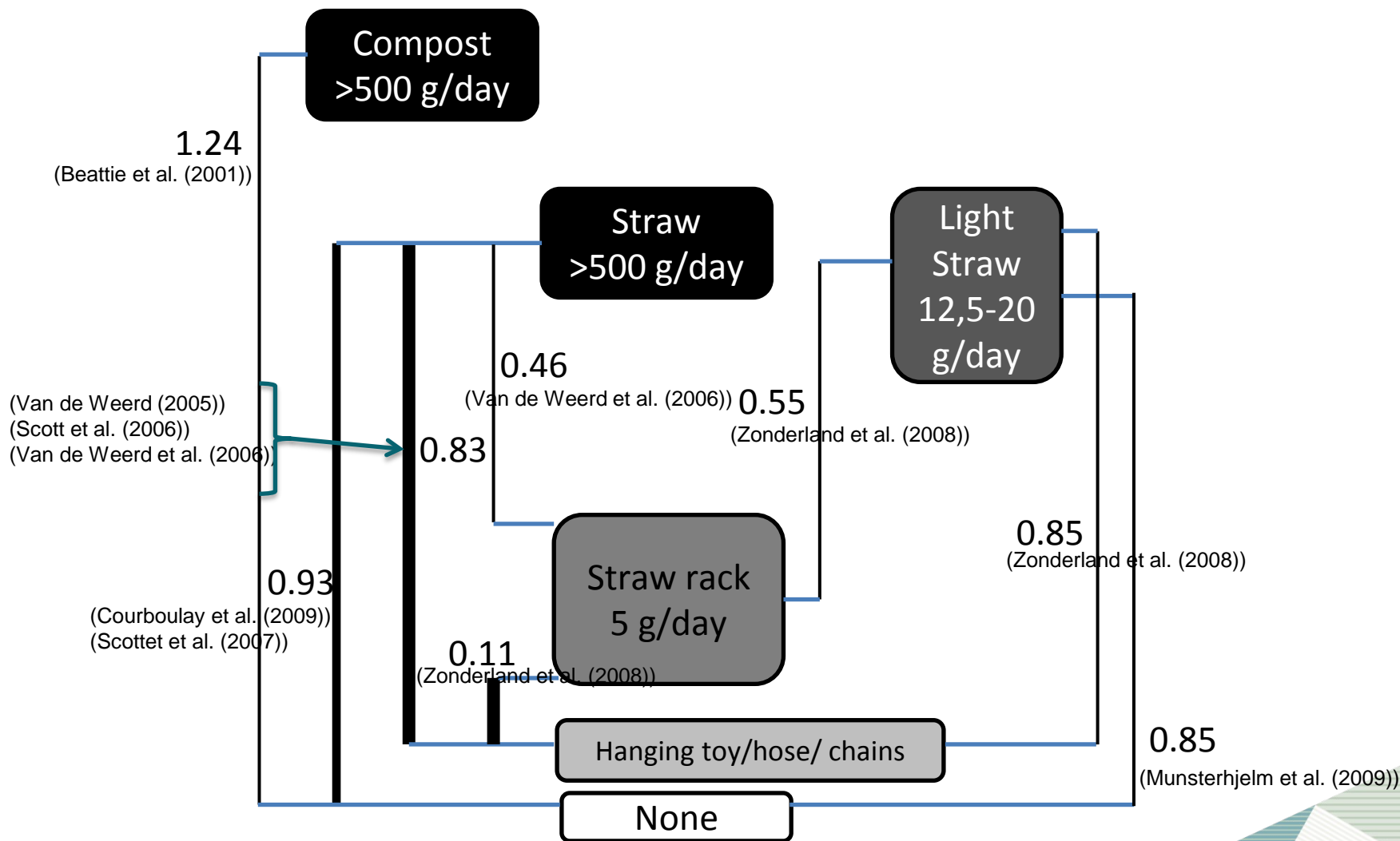
- Overview of causes and handling of tail biting
- PRC research
- To dock or not to dock – what is in the producer's best interest?

THE UNDERLYING PROCESSES OF TAIL BITING



(D'Eath et al. 2014)

ENRICHMENT MATERIALS' RELATIVE EFFECT AT REDUCING TAIL BITING (D'Eath et al. 2014)



FACTORS AFFECTING DAMAGING TAIL BITING (D'Eath et al. 2014)

Cause	Good evidence (research based)	Epidemiological evidence	Unclear evidence/ little effect	Needs further investigation
Manipulable substrates	✓			
Feeder space	✓			
Temperature		✓		
Season		✓		
Stocking density			✓	
Group size			✓	
Nutrition				✓
Disease				✓
Breed				✓

CESSATION OF TAIL DOCKING IN WELL-MANAGED CONVENTIONAL FARMS (Lahrmann et al. 2014)

- Two herds with a low incidence of tail biting
- Wean to finish in the same pen in herd 1
- Weaner unit and finisher unit in herd 2
- Straw on the floor once a day in the weaner period
- 75-90 piglets were not tail docked
- Additional enrichment was provided to stop the tail biting

ENRICHMENT (Lahrman et al. 2014)



AVERAGE PERCENTAGE OF TAIL BITTEN PIGS PER BATCH (Lahrman et al. 2014)

Herd	Batches (n)	Pens (n)	7-30 kg		30-60 kg		60-85 kg	
			Average	min - max	Average	min - max	Average	min - max
1	5	23	2.2	0.2 – 6.5	7.8	0 - 16	4	0 – 6.4
2	16	45	8.2	0 – 29	20.3	0 – 59	7.5	1.4 – 18

- In 61 % of the pens in herd 1 tail biting was observed
- In 91 % of the pens in herd 2 tail biting was observed



COMPARISON OF HERD DATA AND MEAT INSPECTION (Lahrman et al. 2014)

Herd data (herd 2)

- 51 % of the pigs with intact tails had had a tail lesion at least once between 7-85 kg
- Mortality rate: 5.7 % (32 out of 42 destroyed because of tail biting)

Meat inspection (herd 2)

- 5 % of the pigs with intact tails had remarks on tail lesion
- 0.4 % of the tail docked pigs had remarks on tail lesion

Organic/free-range

- 2.3 m² per pig at 100 kg (free-range 1.2 m²)

Conventional

- 0.65 m² per pig at 100 kg



Organic/free-range



PREVALENCE OF TAIL LESIONS IN ORGANIC PRODUCTION (Alban et al. 2015)

**More frequent
in organic/free-range**

	Prevalence (%)		Odds Ratio
	Organic/ free-range	Conventional	
Tail lesion – local*	2.37	0.76	3.2
Tail lesion/tail infection*	0.18	0.09	2.0

*Data from meat inspection

COMPARISON OF THREE SCENARIOS (D'Eath et al. 2015)

- Standard Docked:
 - 2/3 slatted floor and 1/3 solid or drained floor
 - Fixed enrichment materials (pieces of wood attached to chains or in holders)
- Standard Undocked:
 - As Standard Docked but with no tail docking
- Enhanced Undocked:
 - Increased floor area
 - Pen floors which are 1/3 slatted and 2/3 solid or drained
 - Provision of straw

SUMMARY OF COSTS AND REVENUES

(NOT TAKING INTO ACCOUNT DIFFERENCES IN TAIL BITING AND COSTS REGARDING TAIL BITING) (D'Eath et al. 2015)

Monetary values	Standard Docked (€/pig)	Standard Undocked (€/pig)	Enhanced Undocked (€/pig)
Total revenue	123.93	123.93	123.93
Total variable costs	124.86	124.86	128.87
Total fixed costs	12.71	12.57	14.46
Gross margin	-0.93	-0.93	-4.94
Net margin	-13.64	-13.50	-19.40

	Standard Docked	Standard Undocked	Enhanced Undocked
EMV (€/pig)	+ 6.4	+ 3.8	

CONCLUSION OF THE COMPARISON (D'Eath et al. 2015)

- Standard Docked provides the highest economic gross margin with the least tail biting
- Enhanced Undocked is the least economic but results in a lower prevalence of tail biting than Standard Undocked
- Standard Undocked may pay off for some farmers but it is a more risky choice
- Standard Undocked has inferior welfare to Standard Docked
- As for Enhanced Undocked more pigs suffer from being tail bitten but avoid the acute pain of docking compared to Standard Docked

CONCLUSIONS

- Cessation of tail docking increases the incidence of tail biting even in well-managed herds
- The experience from our trials is that one out of two pigs in some herds could be at risk of getting a tail lesion between 7-85 kg if they are not tail docked
- Tail lesions are more frequent in organic and free range production than in conventional production
- By tail docking producers are acting in their own best interest
- To compare welfare consequences of no docking at a farm level the number of tail bitten pigs must be considered