

HKSCAN

Insights from the Finnish pig industry: Long tails

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Introduction

- Jan Vugts, 50 years
- Married with Anu
- 1 daughter called Laura
- Work since 2002 for HKScan Finland Oy
- 35 years experience with pigs in 4 countries:
Finland, Netherlands, Sweden and Estonia



High Animal Welfare Finland

- Tail docking is forbidden since 2003
- High space requirements since 2013
- High health status
 - PRRS free
 - Mycoplasma hyopneumoniae free
 - Salmonella free
- Additional HKScan:
 - Ear notching and teeth reduction are forbidden
 - Currently 40% of the sows in the HKScan chain are loose housed during lactation



Welfare subsidies

- Investment subsidy 30%
- Free farrowing € 250 / sow / year
- Max 5% wounded tails at slaughter € 21/ finisher place / year

These subsidies are payed by the Finnish government.

Nursery 7 - 30 kg



- Feeding: long trough - 6x / day
- Space: 0,4 m2 netto
- Pen: 2/3 solid floor – steel slats – open pen division slat
- 2-Climature: covered lying area

Finishers 30 – 120 kg



- Feeding: long trough - 3-4x / day
- Space 1.0 m2 netto
- Pen: 2/3 solid floor (max 10% open)

Tail trial 2019

Intact tails as a welfare indicator in finishing pigs?

Intact tails as a welfare indicator in finishing pigs? Scoring of tail lesions and define intact tails in undocked pigs at the abattoir

Trial done in cooperation with Helsinki University in 2019



Tail lesions:

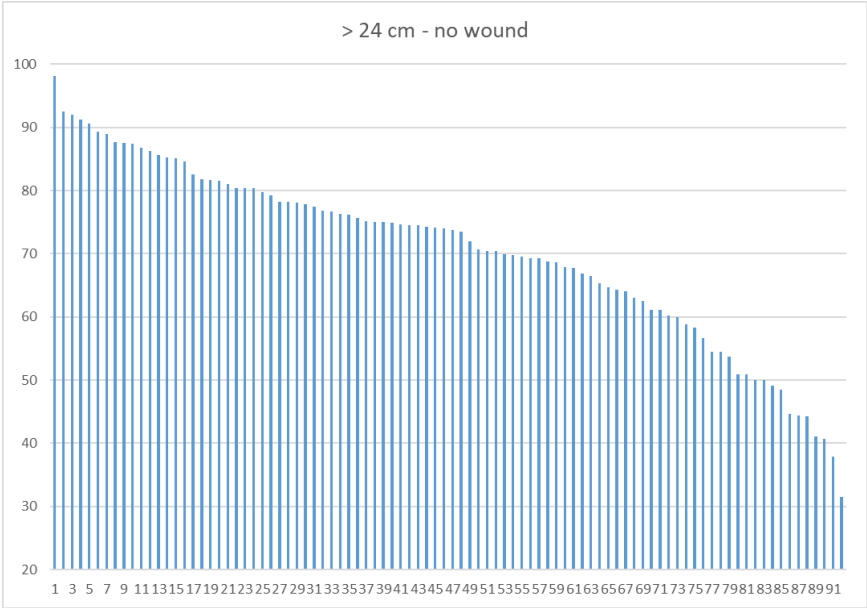
	Dirty side	Clean side
Intact	58,7 %	49,2 %
Healed	22,6 %	36,7 %
Acute (lesion)	18,7 %	14,1 %
Dry scab	9,2 %	-
Minor wound < 2 cm	6,5 %	11,6%
Major wound > 2 cm	2,8 %	2,5 %



Most of the lesions have healed at the time of slaughter.
This indicates that most biting occurs in the nursery.

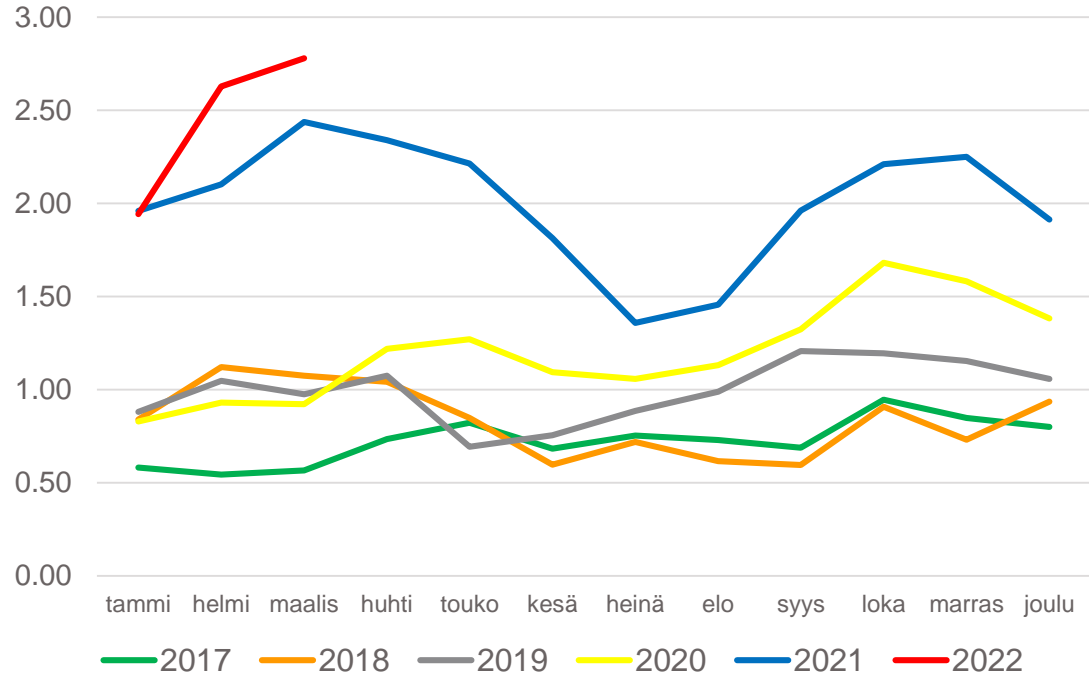
Reference and country	% 'Mild' of all pigs	% 'Severe' of all pigs	Docked or not docked
vom Brocke et al 2018, Germany	23.6%	1.88%	~99% docked
van Staaveren et al (2016) Ireland	25.2%	3.1%	~99% docked
Teixeira et al (2016) Ireland	69.7%	2.3%	~99% docked
Harley et al (2014) Ireland	38.3%	1.9%	~99% docked

INTACT ENOUGH: > 24 cm and no wound



Feeding and long tails

Tail biting data meat inspection

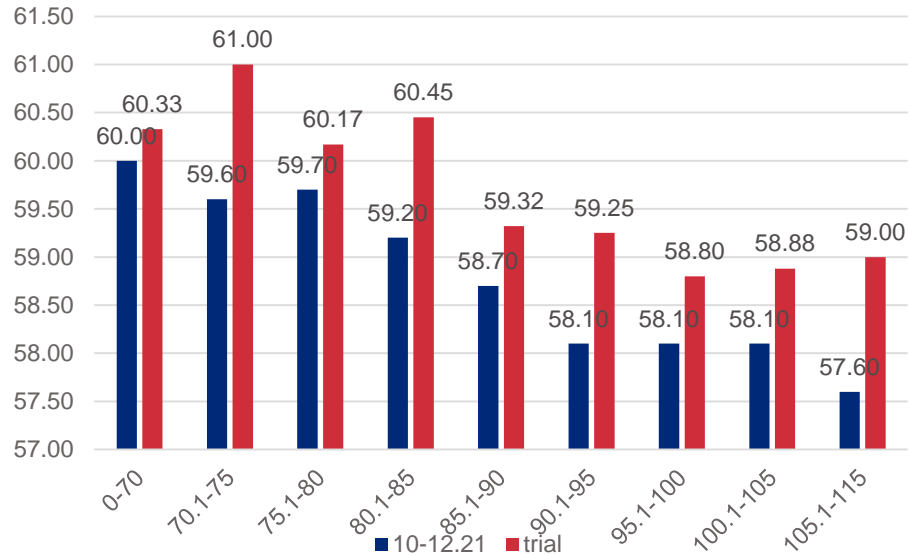


Feed trial

	Practice	Genetic suppliers	Trial
30-45 kg	0,98 - 1,01	1,06 - 1,11	1,06
45-75 kg	0,82 - 0,86	0,93 - 0,95	0,90
75-120 kg	0,74 - 0,76	0,79 - 0,82	0,82

- Tryptophane 20% of sid Lysine
- 2 concentrates instead of 1
- Less byproduct starter diet
- Better protein source starter concentrate
- More fiber (oats, beetpulp, wheatbran)

Result meat %



	Average meat %	Meat % correction
10-12 2021	58,37%	€ -3,35
Section 4	59,23%	€ -1,69

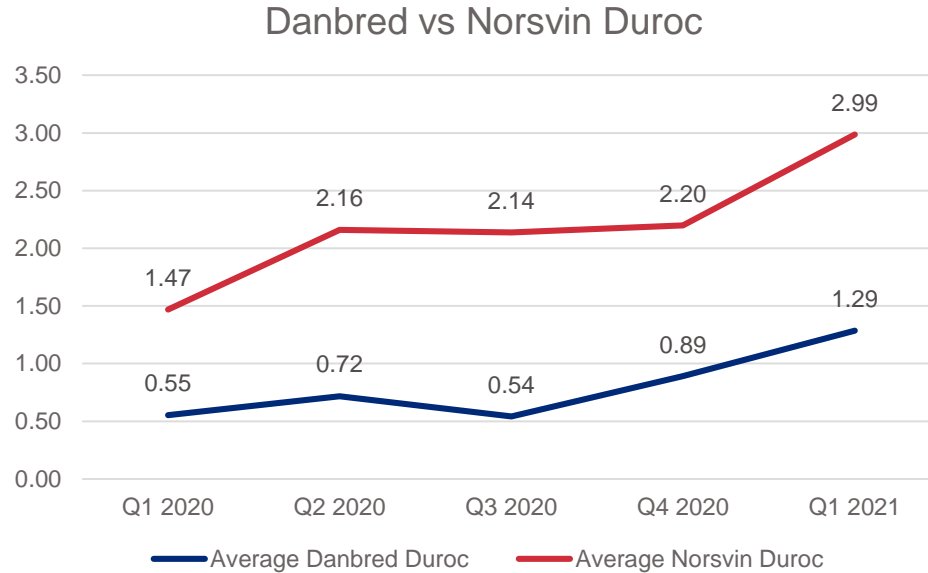
Experiences producers

- The piglets started to eat very well
- The daily gain improved to 1050-1100 g / day
- Better manure consistency
- Calmer animals → clearly less tail biting
- Improved uniformity



Influence of terminal sire on tail biting

Norsvin vs Danbred duroc



Terminal sires



Danbred Duroc



Norsvin Duroc



TN Tempo
(test)

Tempo experiences farrowing

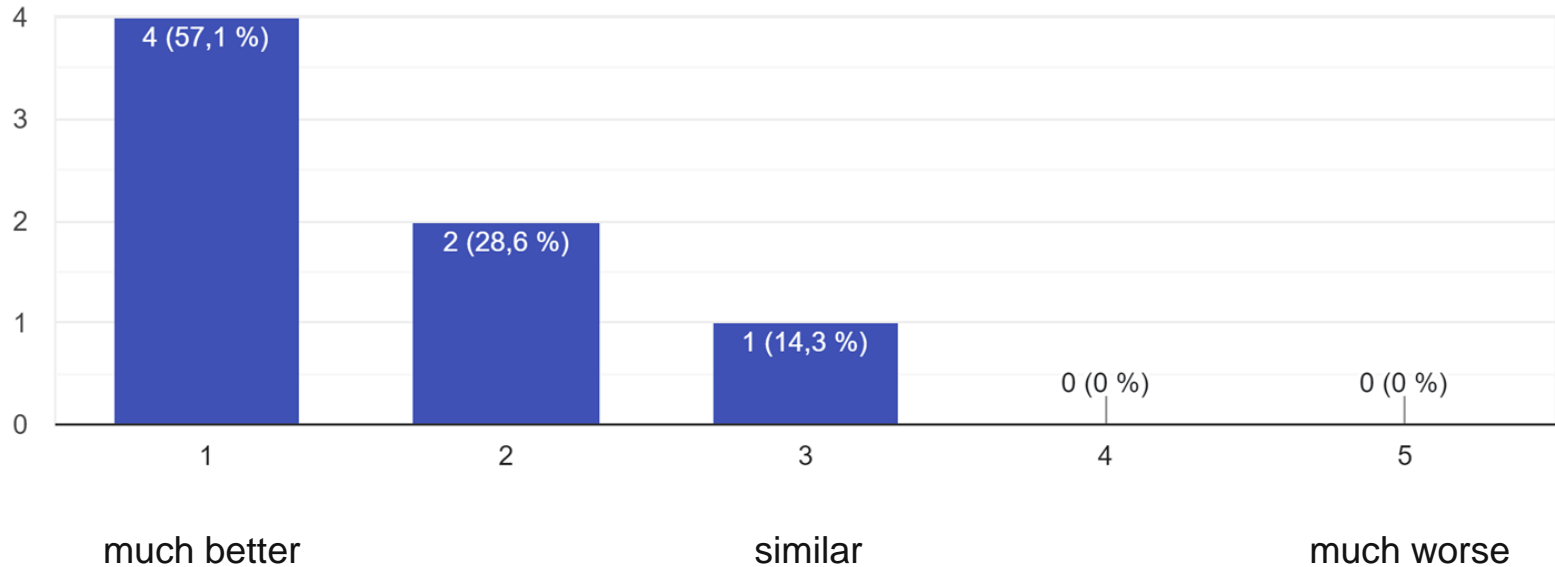
- Improved vitality at birth
- Increased litter size
- Less diarrhea
- More splayleg



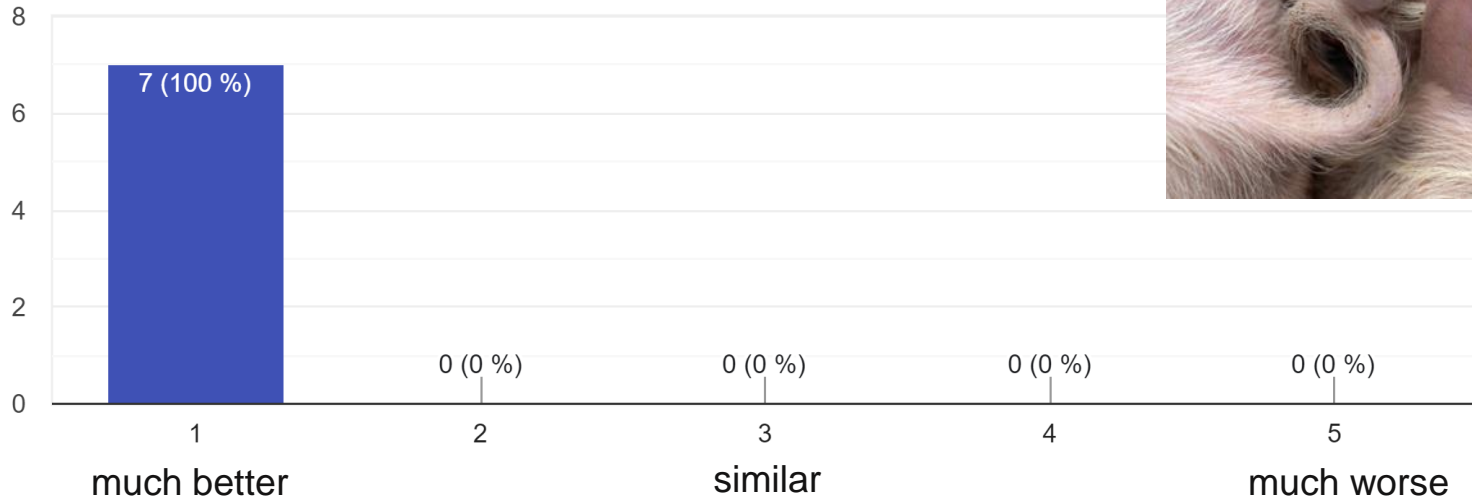


Nursery performance

Weaning diarrhea



Tailbiting in the nursery



How to get started with long tails?

Basics in order before you stop docking

- Health: SPF
Gut health
- Housing: Function areas
Sufficient space
- Climate: Air quality
Comfort temperature
- Genetics: Robust
Calm
- Water: Clean and fresh
- Feed: Amino acid levels
Functional fibers



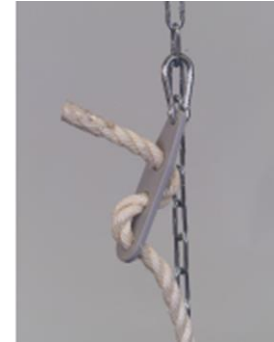
Roughage



- 2x/ day on the floor seems more effective than 24 h via a dispenser
- The openings in the dispensers are often too small.
- Extra roughage should be given during sensitive periods
- The quality of straw and hay in Scandinavia is a challenge
- Slurry system design

Toys:

- Farmers and pigs often have a different opinion about toys:
 - Farmer: the toy should be long lasting
 - Pig: the toy should be easy destroyable
- Location is important: NOT IN THE TOILET
 - Good toys for the pigs:
 - (Fresh) wood on a chain
 - Organic rope
 - Burlap sack



Look for early signs



Check for the real cause:

- **Does it always start in the same period?**
- Is there a group which is extra sensitive?
- Are there health issues?
- Can all the piglets eat unrestricted?
- Is there enough space?
- Is the climate in order?
- Water quality / availability?



Questions?

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Free farrowing experiences

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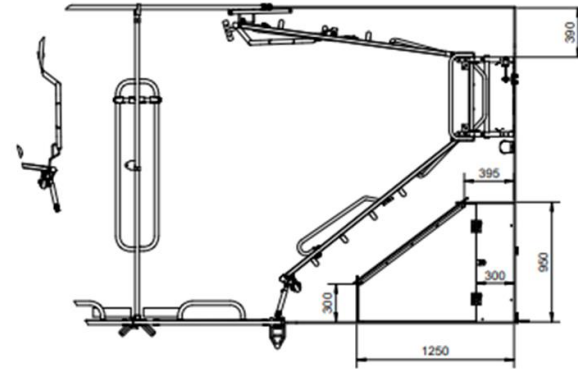
Personal free farrowing experiences

- Advised Swedish sow farms 2015-2018
- During last 6 years many Finnish producers have invested in free farrowing. Currently 40% of the HKScan sows are kept in free farrowing pens



Design

- Min 7,0 m²
- 1,5 m² piglet area with 0,9 m² covered piglet nest
- Cast iron flooring sow area
- Half open pen walls
- Ventilation capacity: min 400 m³/sow/hour



1,5 m2 piglet area



- 15 piglets of 8 kg need a lot of space
- Piglet feeders need to be located close to the nest but out of reach of the sow
- Completely closed and heated floor in the covered area (0,9 m2)

Half open pen walls



- Improves air flow
- Sow to sow contact
- Better overview for all: you see the sows, the sows see you

Solid area



- Finland 50% by law
- Needed for nest building material
- 50% solid = hygiene challenge



Fixate or not?



- Allowed: 2 days before till 3 days after
- Fixation for 3 days after farrowing has a positive effect on the mortality
- Fixation before farrowing can have a negative effect on the birth process

Climate

- Due to the large pens increased chilling risk at birth
- Challenge to get/keep piglets into the nest in the summer
- Minimize age difference in 1 section: 3 days is easier to manage than 1 week
- Airspeed:
 - Negative for just born piglets
 - Positive for the sow during warm period

Sow feeding

Lose housed sows produce more milk. The increased milk production may lead to increased condition loss during lactation.

Optimal feeding of the sows requires:

- 2 diets
 - Transition
 - Lactation
- At least 3 feed curves
- 4x feeding / day





Questions?