









Birgitta Staaf Larsson Swedish Centre for Animal Welfare, SLU

Evaluation of body condition and
 other parameters on pigs
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Introduction

- This presentation is an example how training material in pig control assessment for animal welfare inspectors in Sweden can be conducted.
- The training is performed with TurningPoint clickers and the results are shown after the voting on each slide.
- The results are discussed and the participants asked to calibrate themselves according to what the majority of the group voted.

Evaluation of body condition score (BSC) and other parameters on pigs

- The aim of this presentation is to increase the inter observer reliability




Photo: Birgitta Staaf Larsson




What sex are you?

- 0% A. Male
- 0% B. Female
- 0% C. Other



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What is your profession

- 1. Animal welfare inspector 0%
- 2. County administration veterinarian 0%
- 3. Farm veterinarian 0%
- 4. Farm advisor 0%
- 5. Animal owner/care taker 0%
- 6. Scientist 0%
- 7. Student 0%
- 8. Other 0%



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How long have you been working in this area?

- 1. Less than three years
- 2. More than three years




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Do you have any animal related education?

1. Animal related University education
2. More than 10 ECTS animal related courses
3. Other animal related courses
4. No education at all



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EU legislation

- Regulation
 - Control (2017/625)
 - Transport (1/2005)
 - Slaughter (1099/2009)
- Directive
 - Farm animals (98/58/EC)
 - Calves (2008/119/EC)
 - Laying hens (1999/74/EC)
 - **Pigs** (2008/120/EC)
 - Poultry (2007/43/EC)
 - Lab animals (2010/63/EU)




Photo: Birgitta Staaf Larsson

Natural behaviour

- Bedding material (especially straw) will increase the possibility to express natural behaviour
- The sow should be able to create a nest



Photo: Birgitta Staaf Larsson

Care and management

- Daily care
- Pregnant, new borne, sick or injured animals shall be looked after more often
- They shall be kept sufficient clean



Photo: Birgitta Staaf Larsson

Feed and water system

- Automatic systems must be looked after on a daily basis
- Well constructed
- The feed must have a sufficient structure
- Sufficient, comprehensive and well balanced feed stuff
- Water at least twice a day




Photo: Birgitta Staaf Larsson

Buildings

- It must be possible to rescue the animals from fire
- Protect the lamps and other electrical equipment with appropriate cover
- Ensure the electrical providing in case of electrical failure
- Ensure that the animals can not come in contact with harmful things and material




Photo: Birgitta Staaf Larsson

Climate

- Adjusted climate for the kept animal
- Humidity < 80% in isolated stables



Photo: Birgitta Staaf Larsson

Mechanical ventilation

- Emergency ventilation
- Alarm equipment provided



Photo: Birgitta Staaf Larsson



Photo: Birgitta Staaf Larsson



Photos: Birgitta Staaf Larsson

Day light

- Windows
- Other light



Photo: Birgitta Staaf Larsson

Equipment for immobilizing

- Equipment for immobilizing pigs must not be used otherwise than as a temporary measure
- A sow may be put in an immobilizing equipment during the piglets first days if she show an aggressive behaviour
- A pig may be put in an immobilizing equipment during care if it is aggressive



Photo: Birgitta Staaf Larsson

Weaning

- Piglets must not be weaned before they are 4 weeks and must before that be used to their feed
- If additional requirements are fulfilled, and the farmer is affiliated to an approved animal health control system the piglets may be weaned up to one week earlier



Photo: Birgitta Staaf Larsson

Gelding

- Male pigs may be gelded by persons other than veterinarians provided that gelding takes place before the animal has attained the age of seven days



Photo: Birgitta Staaf Larsson

Hoof treatment

- The hoof of adult pigs may be regularly inspected and cut if needed.



Pens

- Pigs shall have access to a pen that give them the possibility to use different space for laying down, eat and manure.
- The laying place must not have drained floor.



Farrowing box

- If using a farrowing box, the piglets must have access to a separate laying place that the sow do not have access to



Natural behaviour

- Sows must be kept together during their pregnancy



Feeding pens

- Feeding pens for group housed pigs must be provided with a back gate that prevents the pigs from harming each other.



Natural behaviour

- Bedding material must have the quality and be given in certain amount that the pigs need to exhibit their natural behaviour
- During the week before delivery the sow must have access to litter to build the nestling place





Advices for straw material

- The amount of straw material would be in an amount enough to give the pigs a comfortable rest and a hygienic environment



Photo: Birgitta Staaf Larsson

The bedding/straw material is

- Good
- Acceptable
- Not acceptable



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Photo: Birgitta Staaf Larsson



Tail biting

- Mostly frequent in harsh environments with no enrichment
- Remove the tail biter!
- Improve the environment – use straw material, toys or other enrichment
- Pigs with bitten tails will easily get wounds and/or back/spine inflammations

Photo: Birgitta Staaf Larsson

Tail docking is prohibited

Photo: Birgitta Staaf Larsson

Intact tails is a very good indicator of the animal welfare level

High animal welfare standard

- Natural behavior
- Improved health
- Less antibiotics
- Prevents antimicrobial resistance

Photo: Birgitta Staaf Larsson

Joint inflammations

- Caused by *Streptococcus aureus*
- Often developed at the age of 1-2 weeks
- Causes lame piglets with swollen joints
- Has to be treated with antibiotics

Photo: Birgitta Staaf Larsson

Why the piglets gets joint inflammations

- Teeth trimming
- Scars on the front legs
- Scars under the hooves
- Scratches
- Through the navel, that is not completely healed

Photo: Birgitta Staaf Larsson

Other sicknesses

- Black scars – needs antibiotics if the piglet has secondary infections
- Lack of iron – piglets are pale and tired
 - give iron paste within 12 h from birth
 - Iron injection at the age of 2-5 days and at 2-3 weeks.



Photo: Birgitta Staaf Larsson

Diarrhoea

- Diarrhoea in piglets
 - E. coli
- Diarrhoea at 3 weeks of age due to low immune resistance
 - E. coli increases due to stress
- Weaning diarrhoea



Photo: Birgitta Staaf Larsson

Body condition scoring on pigs – not an easy task



Photo: Birgitta Staaf Larsson

Why pigs become lean

- Sickness/parasites
- Young sows do not eat enough
- Access to feed
- Possibility to get the feed!
- The housing system
- Warm environment
- The water supply will affect



Photo: Birgitta Staaf Larsson

Photo: Birgitta Staaf Larsson

The design of the feeder

- Forward exit
- Solid walls in front when group feeding
- Protection (gate) behind while eating



Photo: Jan Svedberg



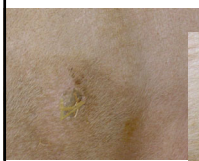
Photo: Birgitta Staaf Larsson



Photo: Birgitta Staaf Larsson

Risks with low body condition

- Risks of wounds
- Enough straw material extra important
- Other alternatives – comfort mats



Photos: Anne Larsen

■ Warm weather increases the risk that the sows prefer solid concrete without bedding material which increases the risks of wounds




Photo: Birgitta Staaf Larsson

Risks with fat sows

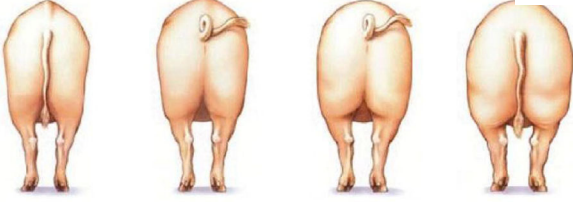
- Higher prevalence of MMA=Mastit, Metrit, Agalakti
- Pig fewer



Photo: Birgitta Staaf Larsson



Photo: Birgitta Staaf Larsson



Klass 1	Klass 2	Klass 3	Klass 4
För mager. Späckmått under 10 mm.	Bra hull vid avvänjning. Späckmått ca 14 mm.	Lagom hull vid grisning. Späckmått ca 17 mm.	För fet. Späckmått över 20 mm..

©Lantmännen
Source: Lantmännen

Thin sow – BCS 1

Hip bone and spine slightly visible




Photo: Anne Larsen




Photo: Anne Larsen

Nice BCS – BCS 2

OBS! At the weaning

Hipbones and the spine slightly detectable by palpation



Photo: Anne Larsen



Photo: Anne Larsen

Nice BCS – BCS 3

OBS! At the weaning

Hipbones and the spine hardly detectable by palpation



Photo: Anne Larsen



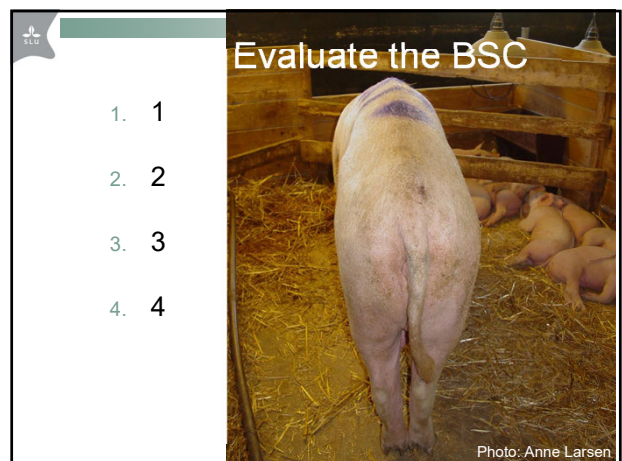
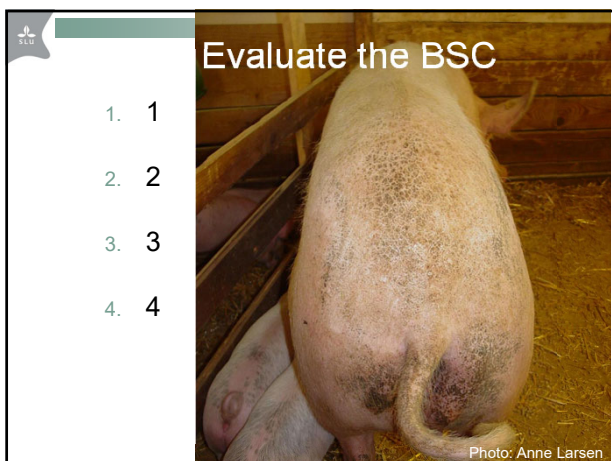
Photo: Anne Larsen

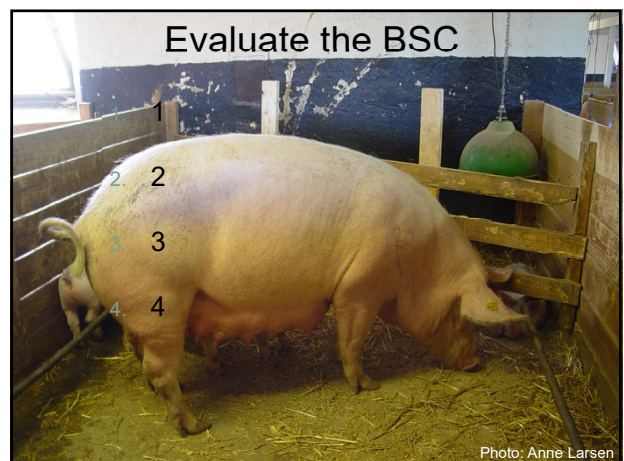
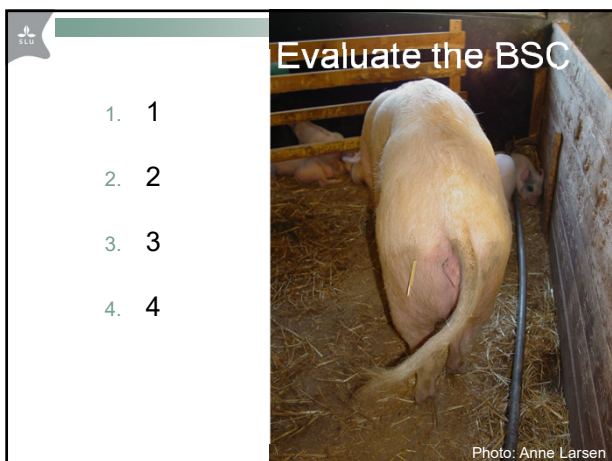
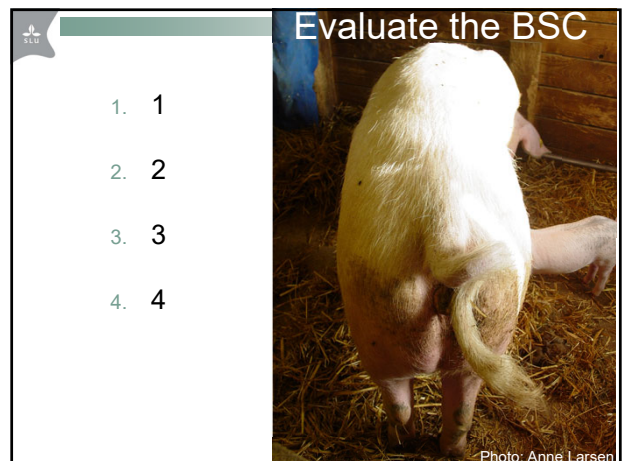
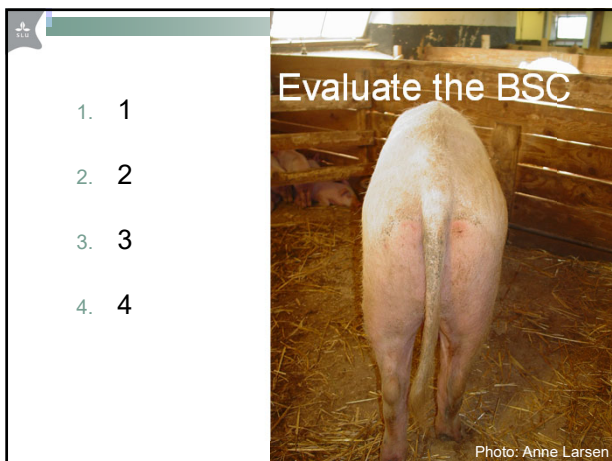


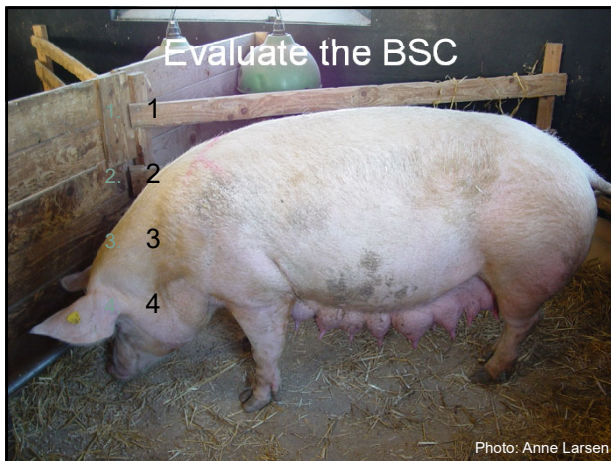
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Body Condition (BC) status at farm level

- **Good BC**
 - - *At least 95%* of the sows are in good body condition, class 2 or 3
 - - Additional sows are lean or fat, class 1 or 4
 - - No sow is unacceptable lean
- **Acceptable BC**
 - - **80%** of the sows are in good body condition, class 2 or 3
 - - Additional 20% are lean or fat, class 1 or 4
 - - No sow is unacceptable lean







Results with improved animal welfare

- Satisfied animal keeper
- Better profitability
- Better animal health
- Better animal welfare.



Photo: Birgitta Staaf Larsson

Recommended articles about preventing tail biting:

Torun Wallgren theses A tale of tails - prevention of tail biting by early detection and straw management

- Wallgren, T.*, Westin, R., Gunnarsson, S. (2016). **A survey of straw use and tail biting in Swedish pig farms rearing undocked pigs.** Acta Veterinaria Scandinavica, 58 (84).
- Wallgren, T.*, Larsen, A., Lundeheim, N., Westin, R., Gunnarsson, S. (2018). **Implication and impact of straw provision on behaviour, lesions and pen hygiene on commercial farms rearing undocked pigs.** Applied Animal Behaviour Science, 210, 26-37.
- Wallgren, T.*, Larsen, A., Gunnarsson, S. (2019). **Tail posture as an indicator of tail biting in undocked finishing pigs.** Animals, 9(1), 18.

