



## BREEDING

### Sow Culling

Sow culling rates have a direct correlation to the economic efficiency of a breeding herd. A good culling policy with a sound understanding of when to cull is an integral part of herd management. It maintains a steady flow, replacing the less productive sows on a regular basis, without disrupting the overall performance of the breeding herd.



To understand the reasons why individual sows are culled

To monitor and recognise the importance of maintaining an optimal parity profile

To aim for an average herd parity no greater than 2.8

Income from cull sows should not be a major factor in determining the culling policy as it should only account for ~2% of total sales income. When the culling policy is not adhered to for whatever reason it results in an increasing number of old sows being retained in the herd, often resulting in decreased herd productivity.

### Common reasons for culling

#### Voluntary culling (selected)

This is carried out to manage the parity profile; decide what your target maximum parity is for each animal and stick to this. Voluntary culling is also carried out to remove any sows identified as having sub-optimal performance; these sows may have shown:

- Farrowing difficulties
- Poor litter size
- Poor lactation and rearing ability
- Poor maternal behaviour
- Decreased productivity compared to the herd average.

#### Involuntary culling (forced)

Some units may find that too many sows are culled due to involuntary reasons, especially from the first two parities; this can lead to poor morale among staff and can also be an indicator of reduced sow welfare. Typical reasons for involuntary culling are:

- Anoestrus
- Failure to conceive (recommended culling after two failed attempts)
- Abortion
- Lameness
- Disease.



### Management guidelines

#### How to reduce involuntary culling

- Ensure optimal gilt selection for improved sow longevity (see the BPEX Gilt Management Pack)
- Maximise feed intake during lactation to reduce body condition loss
- Body condition score sows and feed individually after farrowing and during gestation where possible; if not possible feed on a group basis after sorting by condition
- Consider a 'skip-a-heat' policy where appropriate
- Check legs and feet after each farrowing cycle; even slight lameness can reduce feed intake due to reduced ability to compete for feed (groups) or reduced ability and desire to walk to feeder with a subsequent negative affect on performance
- Ensure floors are not slippery to avoid hip, feet and leg injuries (See Action for Productivity 37: Flooring)
- Check that all sows get up and walk about when inspecting animals

**How to reduce involuntary culling (cont'd)**

- Move any lame, ill, non-eating or bullied sows to a hospital/recovery pen (See *Action for Productivity 15: Hospital and recovery pen management*)
- Discuss veterinary protocol with all responsible staff and euthanise sows with severe injuries; euthanising sows should only be done by staff trained to do so or by the vet
- Record all cull sows and the reasons for culling; use records for monthly reviews of sow welfare and performance
- Use the BPEX cull sow chart each time you cull a sow to provide key information that can be used in conjunction with your veterinary visits.

**Should the sow have another litter?**

At weaning check that sows meet the following criteria:

- In good overall health
- No shoulder sores or other injuries
- Body condition score of 3 (See *Action for Productivity 20: Condition scoring of sows*)
- Good conformation, eg gait and feet
- At least 12 functional teats with no udder diseases or dysfunctions
- Good temperament.

Decide how many of the above points need to be met before the sow continues on to her next litter. Continually assess the checklist and aim to meet more and more of the criteria over time.

**Other reasons for culling****Stomach ulcers**

If a sow loses her appetite, looks unwell and has black or dark dung, it may be a sign of stomach ulcers. Sometimes sows are also seen being sick and generally do not perform well. It needs a vet to diagnose stomach ulcers, and often more than one sow will be affected. If there is a problem with stomach ulcers, increasing the amount of fibre in the diet can help. Coarseness of the diet will also need assessing (see *BPEX Case study 9: The Bygholm Sieve*) and concerns should be discussed with a nutritionist.

**The cost of empty days**

$$\text{Cost per sow-day} = \frac{\text{Total annual breeding herd expenditure}}{(\text{productive sows} \times 365)}$$

$$\text{Cost of reproductive failure} = \frac{\text{Cost per sow-day} \times \text{empty days per annum}}{\text{pigs born alive (sold) per sow per year}}$$

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**Shoulder sores**

Shoulder sores can be extremely painful and lead to reduced wellbeing, feed intake and productivity. Shoulder sores are often a sign of poor body condition management, problems with the flooring and small/poor farrowing crates, but can also be found on old or ill sows. Sows with shoulder sores should be treated according to the veterinary protocol and moved to a hospital/recovery pen depending on severity. Identifying at risk sows and addressing any potential contributing factors is key (see *BPEX bulletin 17: Shoulder sores*).



Sows should be in body condition score 3 at weaning to ensure that they are fit to re-breed



If there are not 12 or more functional teats at weaning, or if udder disease is apparent, future performance will be sub-optimal and affected sows should probably be culled