New guidelines for ultrasound scanning of sheep for muscle and fat depth

Key messages
- Scan weight is more important than scan age
- Consider scanning lambs closer to 40kg liveweight
- Well-grown lambs can be scanned from 17 weeks of age
The use of ultrasound scanning has been a great success, with over 400,000 lambs scanned in the past decade.

When should lambs be ultrasound scanned?

Breeders have traditionally been asked to scan lambs at 21 weeks of age, when they weigh at least 45kg.

This protocol has now been reviewed so that:

1. More lambs are scanned prior to slaughter
2. Lambs are measured closer to commercial slaughter weights
3. Improvements in scanning equipment can be taken account of
4. Changing breeding objectives can be reflected. Modern selection places greater focus on increasing meat yield, rather than reducing carcase fatness.
Research indicates change is advisable

Recent Signet studies confirm younger lambs can be scanned reliably. Work by geneticist Dr Janet Roden, using Lleyn and Meatlnc data concluded:

• Reducing age at scanning from 21 to 17 weeks for Lleyn and Meatlnc, would not significantly reduce genetic progress
• The optimum liveweight for scanning is in the range 35–45kg, which is consistent with the liveweights achieved at slaughter by commercial prime lambs

What are the implications?

Signet’s recommendations relating to ultrasound scanning have now changed. Flocks can now scan lambs around 17 weeks of age if they wish, assuming:

• A relatively narrow spread in lambing dates, to avoid scanning large numbers of very young lambs
• Lambs average at least 35kg and the lightest weigh more than 30kg
• Lambs are expressing variation in fat cover/finish (ideally >2mm fat depth)

Signet’s protocol of Hill breeds is unchanged, as Hill lambs tend to be lighter at scanning.

Breeders now have more flexibility when they arrange to scan their lambs. They do need to use judgement to ensure lambs are well-grown and expressing variation in fat cover
**What are Signet flocks doing now?**

In recent years, breeders have scanned lambs at a younger age and most flocks are already achieving satisfactory weights at this age.

Some flocks are scanning lambs at lighter weights than recommended. However, this does not tend to be because they are young.

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**Average scan age and scan weight of lambs in flocks recording with Signet Breeding Services**

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<thead>
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<th>Average scan age (days)</th>
<th>Average scan weight (kg)</th>
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Maternal breeds (not Hill breeds)  
Terminal Sire breeds

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**Make sure lambs are heavy enough to scan, rather than focusing on their age**

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For more information contact  
Signet Breeding Services  
Email: signet@ahdb.org.uk  
or visit signetfbc.co.uk

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