

Ram**COMPARE**

NEWSLETTER

Spring/Summer 2017



The RamCompare project has reached an interesting stage as the second lambing season has just finished and plans are coming together for the next phase of the project.

The project team is really happy with progress and a huge amount of data has been collected from the farms and abattoirs. Analysis of data collected has begun and initial results will be presented to the industry at the Sheep Breeders Round Table conference in November.

The aim is for the project to continue into phase II, incorporating new breeds and additional farms, from September.

Bridget Lloyd, Project Coordinator

RamCompare Project

- **The UK's first commercial progeny test**
- **Launched in May 2015**
- **Will identify rams with most profitable genes for commercial sheep production**
- **More than 6,000 slaughter lambs on trial**
- **Second lambing season completed May 2017**
- **Results to be published spring 2018.**

RamCompare provides a direct comparison between the commercial performance of lambs from five terminal sire breeds. The industry scheme aims to drive genetic improvement forward through the inclusion of commercial data in genetic evaluation.

Over two breeding seasons, 70 rams have been tested from five breeds producing more than 3,000 commercial lambs per year for data collection.

The farms represent a range of UK systems in terms of lambing date and finishing systems. Each farm has provided at least 320 ewes that have been bred to Suffolk, Texel, Charollais and either Hampshire Down or Meatline rams. The performance of lambs is examined under commercial conditions.

In this newsletter:

- Flocks and rams for phase II
- Progeny group size per sire
- The race to 40kg
- Meat yield and tenderness assessments
- Ultrasound scanning recommendations
- How to engage with RamCompare.



Flocks and rams needed for phase II

Like phase I, farms involved in phase II of RamCompare will collect data from tuppings through to slaughter.

We are looking for flocks to recruit for phase II to incorporate new breeds. These flocks will bring a focus to a particular breed and will use sires from the main project to ensure linkage. The expectation would be to collect data from tuppings through to abattoir. EID recording is essential. Flocks with high health status are of a particular interest as we intend to move rams from these flocks to use in other farms in subsequent years.

If you would like to nominate rams to be used via artificial insemination (AI) or natural service for the next breeding season, please contact Bridget Lloyd. We are seeking rams from the five breeds already on trial, plus others including Beltex and Polled Dorset.



Queries or information: bridget.lloyd@ahdb.org.uk
or visit: ramcompare.com Twitter: [@RamCompare](https://twitter.com/RamCompare)

Number of lambs born per ram

Each farm provided 120 ewes; 30 per sire for artificial insemination (AI) and five groups of around 40 ewes for single-sire mating groups. The target was to produce progeny groups of 75 lambs per AI sire and 50 lambs for each natural service ram. AI sires were used on three farms each in year one.



In the first mating season, eight AI sires were used. They achieved a range of 67 to 114 lambs each. Three quarters (six) of the rams achieved their target average of 75 lambs or more. See Figure 1.

31 rams were used in single-sire mating groups, with a range of 45 to 154 lambs per sire. Only one ram failed to achieve the target with 45 in his progeny group. See Figure 2.

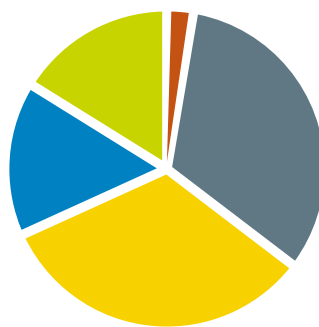
Some farms preferred to turn natural service sires out with larger groups of ewes to ensure economical use of the paddocks assigned to single-sire mating groups.

Due to the increased ewe numbers, over 60% (20) of the sires had more than 75 lambs per progeny group. With a third (10) of the sires having more than 100 lambs each.



50-74 75-99 100-124

Figure 1: Lamb numbers per AI sire



25-49 50-74 75-99 100-124 125+

Figure 2: Lamb numbers per natural service sire

Free semen available

To add value to RamCompare, 1,000 doses of semen are available to performance recording flocks. All three rams have commercial progeny being tested.



Texel

Kimbolton Voyager

PPK1400417 ARR/ARR

High performing son of one of the highest indexed Texel stock rams in the country with high scan weight and muscle depth EBVs. 72 progeny born 2016.



Charollais

Foulrice On RamCompare

14DG04690 ARR/ARR

This son of Dalby Mount Aloe is from a highly muscled line with 139 progeny, he has a high scan weight with an overall index close to the top 10% for the breed.



Suffolk

Rugley RamCompare

10P:14:04080 ARR/ARR

March born Suffolk with 154 progeny in the top 1% of the breed for eight week weight, scan weight, muscle depth and overall indexes.

- Available to performance-recorded flocks
- Maximum of 30 doses per flock
- Associated fees for semen handling, transfer, storage and insemination are not included
- See www.basco.org for latest EBVs
- Conditions apply.

Ram longevity

All rams purchased for the trial were quarantined in line with Sustainable Control of Parasites in Sheep (SCOPS) recommendations to protect the biosecurity of the project farms.

Out of the 31 rams used in the first year, all of them survived their first winter on farm with one dying and one requiring culling before the second breeding season.

In the second breeding year, 35 rams were used and all of them survived.

The race to 40kg

Commercial farms that were using predominantly forage-based finishing systems were sought for the project. Across the six farms it is interesting to see the different speeds at which lambs reach 40kg. Faster finishing can lead to lower production costs and mean price penalties in a falling market are avoided.

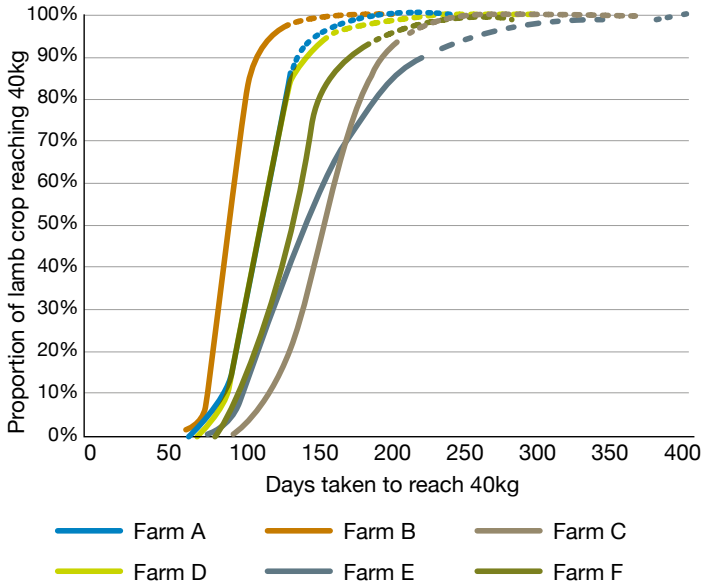


Figure 3: For the six RamCompare farms the age that the proportion of the lamb crop reached 40kg

Some of the youngest lambs to hit 40kg did so at around 70 days, but what is interesting is the speed with which the other lambs reached slaughter weight (Figure 3). On one farm (see dark orange line), half their lambs reached 40kg by 100 days of age. On other units this midway point was not reached for another 50 days, with lambs growing more slowly due to low grass growth or health challenges.

The project does not aim to compare farms, but the dataset does show that there are other ways to think about lamb growth rates and finishing times. The results also demonstrate the potential growth rates that can be achieved from elite genetics and the ability to do it off forage.

Assessments for saleable meat yield and tenderness

Payments for carcasses are currently dominated by weight and classification, which give some indication of the meat yield. Saleable meat yield (SMY) tells us something about that animal beyond its size and is a better reflection of the true value of the carcass. As part of the RamCompare project, SMY has been determined on a proportion of carcasses.

To calculate SMY, the carcass is butchered into its primal joints and the weights are compared to the initial cold carcass weight. The fat and waste trim is weighed and subtracted from the weight recorded for each cut and this gives the carcass yield. From this we can determine how the higher-priced cuts have yielded. Using rams that produce progeny with more meat in the higher-priced cuts (loins and legs) will mean additional income for the meat supply chain, some of which will be passed back to the producer. This may become easier to implement if an objective measurement of classification, such as visual image analysis, is used.

Tenderness is being measured by using the Warner Bratzler method to determine the maximum shear force required to cut through up to eight samples from the cooked loin. This highlights any variation of tenderness. It has been reported that high growth rates and high yields have a negative effect on meat quality in pigs, beef and poultry. This project gives us the opportunity to determine if tenderness is affected by growth rates in sheep.

So far, we have collected over 20,000 individual carcass measurements from RamCompare lambs.

Table 1: The number of lambs with linked slaughter data (carcass, meat yield and tenderness)

Abattoir	Farm	Carcass weight and classification	Primal data	Shear force	Total carcass phenotypes*
Randall Parker Foods	Moat Farm	198	51	48	1,366
	Thistleyhaugh Farm	545	101	76	3,152
	Chawton Park Farm	636	86	86	3,331
	Bradley Farm	441	61	60	2,216
Dunbia	Beili Ficer Farm	370	168	170	3,779
	Bowhill Estate	567	367	233	6,938
Total		2,757	844	673	20,782

*includes all the weights from the saleable meat yield

Changes to Signet ultrasound scanning recommendations

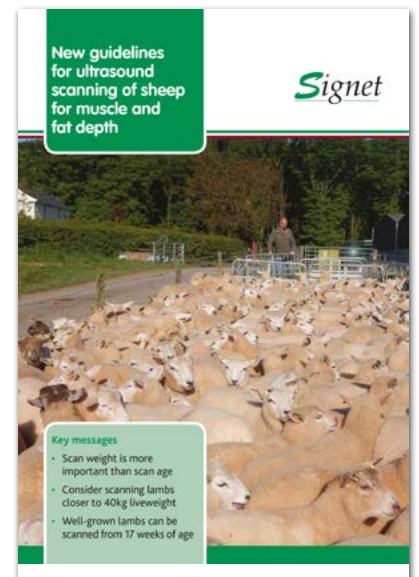
RamCompare lambs have ultrasound scanning measurements of back fat and muscle depth taken at 90 days of age. This is much earlier than is recommended for pedigree ram breeders. The reason for scanning younger is so we can capture the data before large batches of lambs are sent to the abattoir.

Genetic improvements mean that lambs now reach slaughter weights quicker than ever before and the technology used to take measurements has moved on. Scanning pedigree lambs at 21 weeks of age, as previously recommended, no longer reflects the growth rate targets for a typical slaughter lamb.

AHDB's Signet Breeding Services asked independent consultant Dr Janet Roden to

investigate the impact of scanning lambs at younger ages (closer to commercial slaughter weights) on genetic progress. The study used real ultrasound data from over 88,000 pedigree lambs scanned between 1990 and 2015 from the Lley and MeatInc breed. Analysis concluded that sufficient phenotypic and genetic variation exists in younger lambs. This means they could be scanned from 17 weeks of age without significantly reducing the rate of genetic progress in loin muscularity and growth rate in animals being bred for future breeding.

This gives breeders greater flexibility when booking their scanning appointment, providing lambs weigh at least 30kg and express variation in cover. A new Signet leaflet explains the changes which is available from www.signetbfc.co.uk.



Interview



Ian Robertson, Chawton Park

Twelve months into the project, Samuel Boon spoke to Ian Robertson, RamCompare's May-lambing flock to ask him how things have gone.

Ian, what have you enjoyed most about the first year of the project?

Well, lambing time was interesting with a range of lambs dropped by different breeds of sire and from then onwards, whenever lambs have been weighed or drawn for slaughter it has been fascinating to relate the progeny performance back to their individual sires.

Collecting RamCompare data while lambing over 50 ewes a day must have been hard going?

We have good systems in place at Chawton Park for electronic data capture. We use Border Software to record farm data and much of this information is already being collected. The extra information we needed for this project was birth weight and lambing ease – although in reality few ewes required assistance last year.

We also try and make efficient use of our time, for example, using cattle grids to reduce the time spent opening gates so that we can spend time where it matters most.

What are you looking forward to finding out?

At a national level, the availability of EBVs for days to slaughter, carcass conformation and fat class provide a great new opportunity for sheep producers to tailor ram selection decisions to optimise performance from their individual farm.

Within our own system, it will be interesting to see if there are differences between sires in terms of lamb survival to slaughter and, of course, their relative financial value now we know the sale value of their progeny.

What are the secrets to success for anyone thinking of becoming a RamCompare farmer?

A good EID system and supportive staff are essential to good data capture.

"And a very tolerant wife" (Helen's voice from across the room)

How to engage with RamCompare



Find us at RamCompare events:

We will be hosting three farm events during 2017 where lambs and rams will be on display and there will be an opportunity to discuss early analysis and on-going data collection for the project.

13 June 2017

Sion and Claire Williams – Beili Ficer Farm, Llandeilo, Carmarthenshire

19 June 2017

Sion Williams – Bowhill Estate, Selkirk

28 June 2017

Antony Pearce – Moat Farm, Stoke Mandeville, Buckinghamshire

Find us at these industry events:

16 May 2017 - NSA Welsh Sheep, Brecon

31 May 2017 - NSA Highland Sheep, Strathpeffer

7 June 2017 - NSA North Sheep, County Durham

20 June 2017 - NSA South Sheep, Tiverton

3 July 2017 - NSA N Ireland, Ballymena

24–27 July 2017 - Royal Welsh, Builth Wells

17–19 November 2017 - Sheep Breeders Round Table Conference, Notts

How the results will be communicated

Top 25 lists will be generated for the rams used within RamCompare for the following estimated breeding values (EBVs) – eight week weight, scan weight, muscle depth and fat depth. Lists for new EBVs – days to slaughter, carcass fat, carcass conformation and carcass value – will be generated. The rams will be listed irrespective of breed.

The draft lists will be released at Sheep Breeders Round Table and made available at ramcompare.com on the 17 November. The lists will be updated with final results in early 2018 as SMY and tenderness data will continue to be collected over the winter. Events will be planned for late spring 2018 to help breeders and producers use the new EBVs and lists.

Funders



Supporters

