



## FUNDERS



## SUPPORTERS





Goodbye  
and thank  
you to Katie  
Thorley

# Samuel Boon

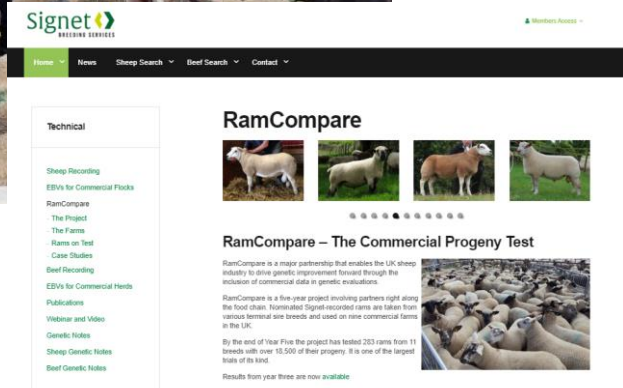
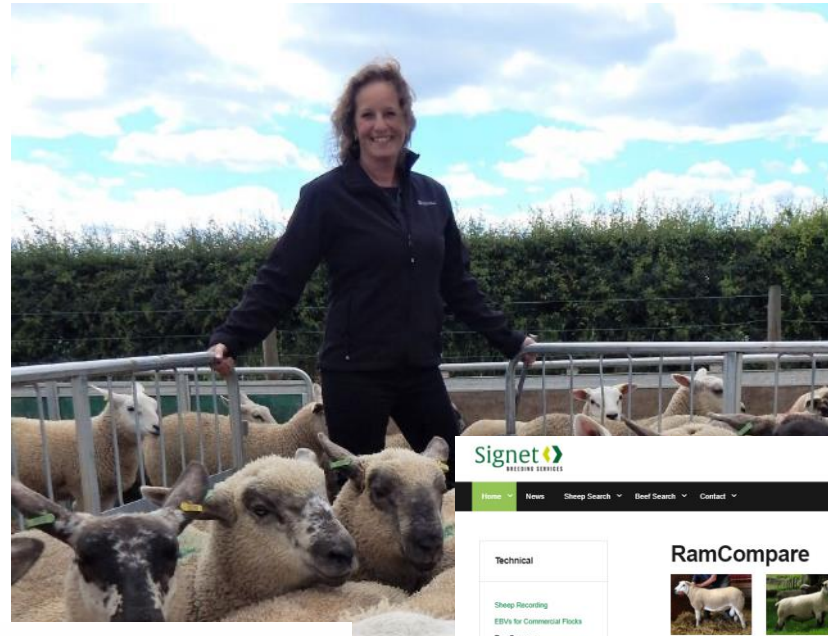


[www.signetdata.com](http://www.signetdata.com)

# Bridget Lloyd

Email: [Bridget.Lloyd@ahdb.org.uk](mailto:Bridget.Lloyd@ahdb.org.uk)

Twitter @RamCompare



[www.ramcompare.com](http://www.ramcompare.com)

# Overview

- Briefly explain the project
  - Six years of data collection
- Case studies from our farms
- RamCompare Results – Year 6
  - Main messages for commercial ram buyers

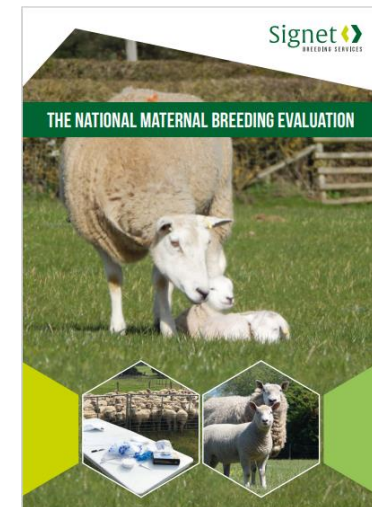
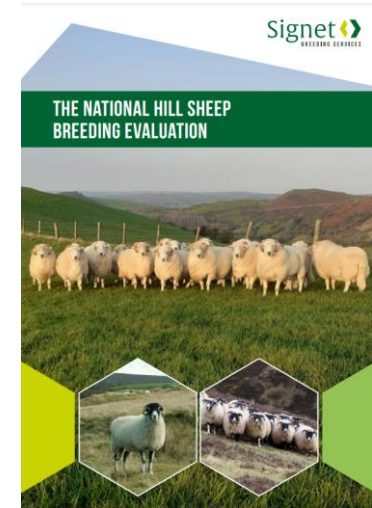
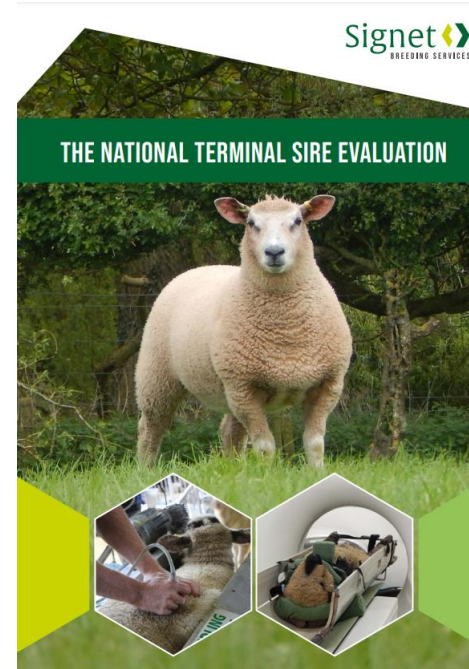


## YEAR 6 RESULTS



# ...in other news.....

- Signet delivers three mixed breed evaluations
  - Nearly 50 different EBVs are analysed
- Includes purebred, crossbred and commercial data
- Carcase traits assessed on a weight adjusted basis
  - *Ability to analyse abattoir traits*
- Indexes updated
- Results every month



# Year 6 – The Interim Year

- No AI programme
    - Natural service
    - Lots of repeat sires
  - No extra primal data collection
  - Ultrasound scanning limited
  - **Full carcase data collection**
- 
- **Year 7 we are back with a bang**
    - And four new farms



# A big thank you

RamCompare is a partnership that brings together many organisations throughout the supply chain to help take genetic evaluation forward in the UK sheep industry. All partners have had an important role in getting RamCompare to this point.

## FARMERS

**Duncan Nelless**  
Thistleyhaugh  
Northumberland

**Ian Robertson**  
Chawton Park Farm  
Hampshire

**Mark and Lynne Exelby**  
The Hutts Farm  
Yorkshire

**Russel and Rhys Edwards**  
Hendre Ifan Goch Farm  
Bridgend

**Adrian and Lyn Coombe**  
Dupath Farm  
Cornwall

**Jamie Wild and Andrew Walton**  
ChazCompare  
Leicestershire

**Stephen Abberley**  
Cwmlliw Farm  
Powys

**Alwyn Nutting**  
Glascoed Farm  
Powys

**Charles Sercombe**  
Sandlands Farm  
Leicestershire

**Owen Gray**  
Saughland Farm  
Midlothian

## FUNDERS



## SUPPORTERS





Mark Exelby  
Hutts Farm  
Yorkshire

Adrian Coombe, pictured here with  
father Peter at Dupath farm  
Cornwall



Duncan Nelles  
Morpeth  
Northumberland



Ian Robertson and daughter  
Bella at Chawton Park  
Hampshire

**And the ChazCompare team...**



Rhys and Russell Edwards  
Hendre Ifan Goch Farm  
Bridgend, South Wales

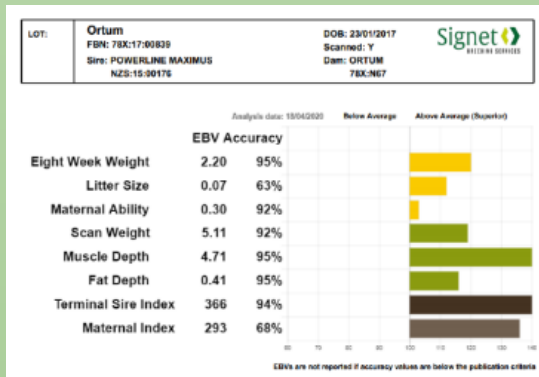
# RamCompare – The National Progeny Test

## Project aims...

- Produce new Estimated Breeding Values (EBVs) for carcase traits
  - Developing breeding tools to get more lambs in spec
- Compare recorded rams under commercial conditions
  - Validate & strengthen the National Terminal Sire Evaluation
  - Assess value of adding commercial data into pedigree evaluations
- Demonstrate commercial value of recorded rams



# The problem we are trying to solve



**Ram breeders have breeding values for**

Scan Weight

Muscle Depth

Fat Depth

Breeding Index



We need to

- Improve our predictions
- Demonstrate the benefits



**Commercial producers are paid on**

Carcase weight

Conformation

Fat Class

~Days to Slaughter

# A massive six year project

- Project farms have been in England, Scotland, Wales and Northern Ireland
  - Over 30,000 lambs tested
- 313 rams tested for carcase traits
  - 12 breeds
- Eight new breeding values produced
  - National terminal sire evaluation enhanced

BELTEX	5
BLEU DU MAINE	3
BLUE TEXEL	6
CHAROLLAIS	71
DORSET	6
HAMPSHIRE DOWN	42
MEATLINC	29
OXFORD DOWN	1
SHROPSHIRE	2
SOUTHDOWN	10
SUFFOLK	71
TEXEL	67
	313





### Insemination

Date  
Sire used

Ewe wt/BCS

### Pregnancy scanning

Conception data



### Birth

Birth weight (ideally)  
Lambing ease  
Birth type (live and dead)  
Sire/Dam  
Fostering

Ewe wt/BCS



### Lamb mortality (ideally)

### 56 Day Weight

Weight / date

Ewe wt/BCS



### 90 Day Weight

Weight / date  
Ultrasound muscle / fat depth  
DNA



### Meat Quality

Tenderness  
Primal yield



### Slaughter

Weight / date  
Carcase grade/ conformation



# Assessing Shear Force

Data collection completed

- 4343 samples from 254 rams

Genetic parameters to be reviewed

- Heritability currently 16%



## Trait Leaders for Shear Force (2016–2020)

**Interpretation note:** These tables show the leading sires, based on five years' data.


Ram ID	Breed	Breeder/Owner (if different)	Sire	Shear force records / Progeny records	Shear Force EBV	Shear Force Accuracy Value (%)
11AB00035 CROGHAM LAMBERT	CHAROLLAIS	Crogham Charollais / W & C Ingram	AB:05085	13 / 34	-0.81	85
GA:149618 ALLISON 9618	MEATLINC	George Allison	HRF:03616	31 / 101	-0.49	93
17PE05860 DALBY	CHAROLLAIS	Charles Sercombe	16PE04907	12 / 166	-0.45	85
15KF00715 CANNAHARS PANACHE	CHAROLLAIS	Lyla, Ailsa & Ryan Davies	11XZR00026	16 / 60	-0.44	87
HME1501742 ELKSTONE	TEXEL	Matt Hobbs	GJG1301036	14 / 57	-0.42	85
EV:1503051 VINES 3051	MEATLINC	E R & J E Vines	CR:1305985	38 / 91	-0.38	94
13ZVY00706 LOWEREYE	CHAROLLAIS	N Oughton	11ZVY00861	5 / 126	-0.37	71
16WF01887 BRETTLES RICARDO	CHAROLLAIS	M & M Rushbrooke / Andrew Walton	15WF01487	50 / 248	-0.35	95
HRH:17:00582 SAMPFORDDEL	SUFFOLK	Kathleen A Hill	HRH:14:00334	22 / 163	-0.35	91
24Y1502085 GRAYLEN	HAMPSHIRE DOWN	Graham & Judith Galbraith	24Y10008	12 / 145	-0.34	84

# The real importance of shear force

- Understanding relationships to other traits
  - (Proxy) traits that may improve tenderness
  - Traits that may make it worse
- A genomic bank of information for the future














# RamCompare Case Studies



Breed:

Flock/Herd:

 [samuel.boon@ahdb.org.uk](mailto:samuel.boon@ahdb.org.uk)   
Sam Boon

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## Technical

[Sheep Recording](#)

[Flockbook Services](#)

[EBVs for Commercial Flocks](#)

[RamCompare](#)

[- The Project](#)

[- The Farms](#)

[- Rams on Test](#)

[- The Results](#)

[- Case Studies 2020](#)

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[- Case Studies 2022](#)

[Projects](#)

## RamCompare



## RamCompare – The Commercial Progeny Test

RamCompare is a major partnership that enables the UK sheep industry to drive genetic improvement forward through the inclusion of commercial data in genetic evaluations.

RamCompare is a five-year project involving partners right along the food chain. Nominated Signet-recorded rams are taken from various terminal sire breeds and used on nine commercial farms in the UK.

By the end of Year Five the project has tested 283 rams from 11 breeds with over 26,000 of their progeny. It is one of the largest trials of its kind.

## Dupath Farm, Cornwall

### **Comparing high and low performing sires for each trait**

- Lambs finished 24 days sooner
- Carcase weights 0.85kg heavier
- Lambs worth an extra £5.17



**Open Meeting - 9<sup>th</sup> August 2022**

Information to follow

# Hutts Farm, Ripon

## Comparing high and low performing sires for each trait

- Carcase weights 0.59kg heavier
- 4% more carcasses in specification
- Lambs worth an extra £3.17





## Scan Weight EBV results (2021)

**Interpretation:** Standardised value based on non-adjusted breeding values.

Ram ID	Breed	Breeder	Owner (if different)	Number of progeny	Scan Weight EBV (standardised)	Scan Weight Accuracy Value (%)
27Z1901049 NORMANBY	HAMPSHIRE DOWN	C M Brant & Son		86	195	96
HRF:12837 THORGANBY	MEATLINC	H R Fell & Sons Ltd		62	155	95
80X1700402 THORBECK	HAMPSHIRE DOWN	Jim Birkwood		257	152	98
BTG1903052 LLANFERRES	TEXEL	Gail Brownsett		91	148	96
883:190761 ANDERSEY	SOUTHDOWN	Andersey Farm Ltd		99	145	96

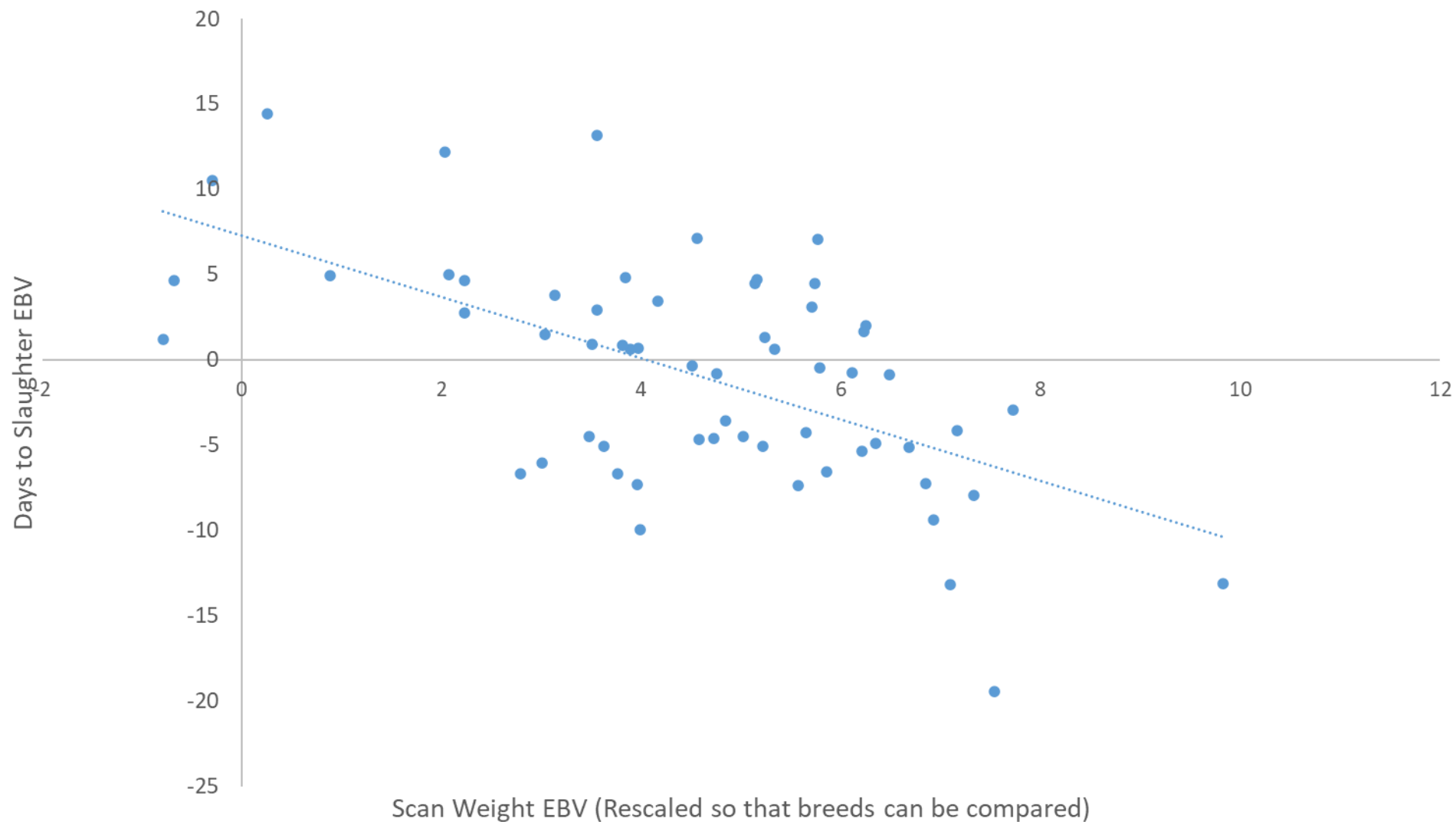


## Days-to-Slaughter EBV results (2021)

**Interpretation:** Days-to-slaughter EBVs indicate the genetic potential to influence the number of days to finish. Animals with low negative values will have the genetic potential to achieve target finished specification in a reduced number of days; positive values indicate a longer period of time to achieve the same finish.

Ram ID	Breed	Breeder	Owner (if different)	Number of progeny	Days to Slaughter EBV	Days-to-slaughter Accuracy Value (%)
80X1700402 THORBECK	HAMPSHIRE DOWN	Jim Birkwood		257	-19.42	98
27Z1700622 NORMANBY	HAMPSHIRE DOWN	C M Brant & Son		287	-13.18	98
27Z1901049 NORMANBY	HAMPSHIRE DOWN	C M Brant & Son		86	-13.10	93
SHF:19:00242 MOAT	SUFFOLK	Martyn & Helen Bateman		127	-9.95	97
CR:1713013 RICHARDSON 13013	MEATLINC	C & J P Richardson		92	-9.35	96

# Breeding Values for Days to Slaughter and Scan Weight for RamCompare rams (2021 Season)





## Carcase Weight EBV results (2021)

**Interpretation:** The EBV for carcase weight is expressed in kilograms (kg). A ram with an EBV for carcase weight of +1 has the genetic potential to produce progeny that will be on average 0.5 kg heavier at a constant age than a ram with an EBV of 0.

Ram ID	Breed	Breeder	Owner (if different)	Number of progeny	Carcase Weight EBV	Carcase Weight Accuracy Value (%)
UK 0 384606 14561 RICHARDSON 14561	MEATLINC	C & J P Richardson		96	1.12	91
19WF02907 BRETTLES UTOPIA	CHAROLLAIS	M M & M L Rushbrooke	Redhill Charollais	47	1.11	82
HRF:12754 THORGANBY	MEATLINC	H R Fell & Sons Ltd		90	1.04	89
DPH:E01812 STONEDGE EWOK ET	BELTEX	D & M & S Prince		76	0.85	89
27Z1901049 NORMANBY	HAMPSHIRE DOWN	C M Brant & Son		86	0.83	84



## Carcase Conformation EBV results (2021)

**Interpretation:** Carcase conformation EBVs indicate the genetic potential for conformation and units of measurement are based on a 15-point scale. Animals with a high positive value have the genetic potential to produce superior conformation.

Ram ID	Breed	Breeder	Owner (if different)	Number of progeny	Carcase Conformation EBV	Carcase Conformation Accuracy Values (%)
AAS/16/02048 MISERDEN	BLUE TEXEL	A & S Andrews		192	2.49	98
20XMP04415 HUNDALEE VOLCANO	CHAROLLAIS	Robert Whittaker	Redhill Charollais	56	1.12	94
UK 0 384606 14462 RICHARDSON 14462	MEATLINC	C & J P Richardson		153	1.02	97
19WGH02085 REDHILL	CHAROLLAIS	Redhill Charollais		122	0.97	97
19ZVY05640 LOWERYE	CHAROLLAIS	N Oughton		90	0.95	93



## Carcase Fat Class EBV results (2021)

**Interpretation:** Carcase fat class EBVs indicate the genetic potential to influence fat class. Animals with low negative values have the genetic potential to produce leaner carcasses; positive values indicate fatter carcasses.

Ram ID	Breed	Breeder	Owner (if different)	Number of progeny	Carcase Fat Class EBV	Carcase Fat Class Accuracy Value (%)
AAS/16/02048 MISERDEN	BLUE TEXEL	A & S Andrews		192	-1.00	97
HRF:11337 THORGANBY	MEATLINC	H R Fell & Sons Ltd		333	-0.84	98
PAP1903268 PENYGELLI CANOLWR	TEXEL	Alwyn Phillips		40	-0.76	81
H6:18:01525 ESSIE	SUFFOLK	Irene Fowlie		222	-0.69	98
80X1700402 THORBECK	HAMPSHIRE DOWN	Jim Birkwood		257	-0.56	98

# Overall Carcase Merit Index results (2021)

**Interpretation:** The index for carcase merit provides a ranking of RamCompare sires that takes into account EBVs for carcase weight, carcase conformation and carcase fat class. The index serves as a guide towards the genetic merit of sires used in a typical commercial flock. Actual financial performance will depend on the system, target market and seasonal price fluctuations.

Ram ID	Breed	Breeder	Owner (if different)	Number of progeny	Overall Carcase Merit Index	Overall Carcase Merit Index Accuracy Value (%)
19WF02907 BRETTLES UTOPIA	CHAROLLAIS	M M & M L Rushbrooke	Redhill Charollais	47	171	84
UK 0 384606 14462 RICHARDSON 14462	MEATLINC	C & J P Richardson		153	168	94
UK 0 384606 14561 RICHARDSON 14561	MEATLINC	C & J P Richardson		96	163	92
HRF:12754 THORGANBY	MEATLINC	H R Fell & Sons Ltd		90	161	91
16PE04907 DALBY RANIERI	CHAROLLAIS	Charles Sercombe		450	148	98
DPH:E01812 STONEDGE EWOK ET	BELTEX	D & M & S Prince		76	148	90
YDP1801698 STONEDGE	TEXEL	D & M & S Prince		135	147	94
20XMP04415 HUNDALEE VOLCANO	CHAROLLAIS	Robert Whittaker	Redhill Charollais	56	145	85
20XPU04026 RAINBOW VETTERIANO	CHAROLLAIS	Andrew Walton		56	138	87
27Z1901049 NORMANBY	HAMPSHIRE DOWN	C M Brant & Son		86	136	86
SHF:18:00183 MOAT JACKSON	SUFFOLK	Martyn & Helen Bateman		242	135	96
AAS/16/02048 MISERDEN	BLUE TEXEL	A & S Andrews		192	130	95
18WZW00251 HARDY	CHAROLLAIS	D & S Laws		99	124	91



# RamCompare

- What have we learned (so far)?
- What is changing?
- Getting involved
  - ChazCompare example



# What have we learned (so far)?

*The important message for commercial ram buyers*

## Estimated Breeding Values that can help

**Breeding  
Goals**



	Scan Weight EBV	Muscle Depth EBV (WtA)	Fat Depth EBV (WtA)
On-Farm Growth Rate	****		
Carcase Weight	**	*	
Carcase Conformation		***	
Carcase Fat Class			****
Days to Slaughter	***		

# What have we learned (so far)?

*The important message for commercial ram buyers*

## Estimated Breeding Values that can help

### Breeding Goals



	Scan Weight EBV	Muscle Depth EBV (WtA)	Fat Depth EBV (WtA)	CT Lean Weight EBV	CT Fat Weight EBV	CT Gigot Musc EBV
On-Farm Growth Rate	****					
Carcase Weight	**	*		*		
Carcase Conformation		***		***		***
Carcase Fat Class			****		****	
Days to Slaughter	***					

# £3.50 per lamb benefit

- Over a ram's working lifetime
  - 3 working years
  - 60 ewes @ 1.4/lambs sold
  - That is an **extra £900/ram**



NO	TAG NO HNL18-	SIRE	DAM	BWk WT kg	SCAN WT kg	MUSK WT kg	FAT	BWk EBV	SCAN EBV	MUS EBV	FAT EBV	TERM INVT
692	111	5124	450	27.4	48.5	34.8	4.03	1.39	4.20	3.41	0.14	257
693	45	711	440	24.4	50.5	34.2	5.57	2.54	6.73	1.91	0.58	283
694	144	715	569	27.3	50.8	32.8	3.03	2.17	5.86	1.95	-0.06	241
695	16	5124	656	27.1	52.7	31.2	3.63	2.06	5.53	2.10	-0.13	243
696	74	715	5105	23.9	50.0	29.9	5.17	2.36	6.62	0.88	0.33	250
697	39	766	557	24.0	50.0	33.0	3.80	1.53	4.77	2.52	-0.10	245
698	34	715	3147	19.9	44.0	29.1	3.63	1.27	3.41	1.34	0.23	196
699	32	715	699	22.7	48.7	29.2	3.63	2.95	7.30	0.58	-0.13	238
700	53	766	358	22.2	45.6	29.8	3.87	2.02	4.44	2.49	0.51	253
701	80	715	638	20.6	43.6	28.5	3.93	1.21	3.31	2.11	0.76	222



# Research update

Abbigail Wells - SRUC/Egenes

1. *Re-evaluate main carcass traits (re-estimate heritabilities and correlations)*
2. *Widen the analysis to include more data and use the full Terminal Sire pedigree*
3. *Re-evaluate primal data (and publish)*
4. *Re-evaluate shearforce data (and publish)*

*In the Autumn look at ways to bring carcass traits analysis into the National Terminal Sire Evaluation*



## Step 1. New Heritability Values (for future evaluations)

Trait	Number of records	$h^2$
Slaughter age	23,086	0.18 (0.018)
Carcass weight	22,948	0.23 (0.018)
Conformation	22,948	0.31 (0.019)
Fat	22,921	0.31 (0.019)

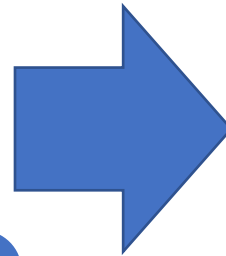
# Our aim to move to a single evaluation

## The National Terminal Sire Evaluation generates

- EBVs for eight-week weight, scan weight, muscle and fat depth
- EBVs for CT traits

## The RamCompare Evaluation generates

- EBVs for days-to-slaughter, carcase weight, conformation and fat class



## The National Terminal Sire Evaluation generates

- EBVs for eight-week weight, scan weight, muscle and fat depth
- EBVs for CT traits
- EBVs for days-to-slaughter, carcase weight, conformation and fat class

# ChazCompare

Andrew Walton and Jamie Wild using Jamie's commercial Mule flock to test Charollais genetics

Benchmarking the performance of their rams

Getting a step ahead



	2019	2020	2021
Rams tested	8	8	9
Lambs tested	531	498	526
Average days-to-slaughter	105	103	101
Average carcase weight (kg)	20.3	20.1	19.2





# ChazCompare

## Key success for ChazCompare

- Use of CT scanning to aid sire selection
- High progeny numbers (av. 53 progeny records/ sire)
- All progeny treated the same and slaughtered over a short period
- A mating plan that created a strong linkage between years and flocks
- Careful data collection to ensure that sire identities were correct

# Next steps

- Lambs are on the ground for 2022
  - Four new farms Alwyn Nutting, Stephen Abberley, Charles Sercombe and Owen Gray
- Nominations for the 2023 lamb crop completed
- Open day planned in Cornwall & chat to us at the NSA Sheep Event





## Finding recorded rams

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- Online
  - [www.signetdata.com](http://www.signetdata.com)
  - [www.itexel.uk](http://www.itexel.uk)
  - [www.innovis.org.uk](http://www.innovis.org.uk)
- Breeder Facebook sites
- Auctions and online auctions
- Breed Societies



# Signet Website Flockfinder and Sheep for Sale



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## Flock Finder

Find Signet Recorded Flocks in your area by selecting your breed of interest and postcode.

You may be interested to know that permanent, breed specific web links also exist for every Signet recorded breed.

For example, the link for Beltex is as follows - to get another breed, simply change the breed name at the end of the URL to the one used by Signet.

- <https://signetdata.com/flock-finder/beltex>


Breed



SUFFOLK

Postcode

cv23 9pb

Search





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## Sheep For Sale


Signet Breeding Services performance records over 30 different breeds and crosses, with recorded rams available from some of the leading breeders in England, Scotland, Wales and Northern Ireland. The "Sheep for Sale" section enables breeders to list animals that are available:

- off farm
- by auction
- as semen in the tank

Signet clients wishing to post details of sheep that are for sale should follow these [instructions](#)

**Update: 09/04/2020 - Dorset May Fair**

The Poll Dorset and Dorset Horn May Fair entries are posted under "Auction Sale" but please note these sheep will be sold off farm. Full catalogue from Dorset Society - [click here for recorded entries](#)



**East Midlands Radisson  
Blu Hotel, DE74 2TZ**

**11-13<sup>th</sup> November** with  
sponsorship from CIEL  
towards a special session  
on Friday afternoon



**Sheep Breeders Round Table**  
Conference 11th - 13th November 2022

# Summary: The important messages

- There are important **genetic differences** between rams
- EBVs are good indicators for differences in farm performance
  - This has a **real financial value**
- New approaches being looked at to update the National Terminal Sire Evaluation



Estimated Breeding Values that can help

Breeding  
Goals

	Scan Weight EBV	Muscle Depth EBV (WtA)	Fat Depth EBV (WtA)
On-Farm Growth Rate	****		
Carcase Weight	**	*	
Carcase Conformation		***	
Carcase Fat Class			****
Days to Slaughter	***		